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STACKS

CIRCULATE



THE AGONY OF TENSION

HEADACHES

SWEATS

TENSE, TAUT MUSCLES

HYPERVENTILATION

TACHYCARDIA

PALPITATIONS

BURNING IN STOMACH

FULLNESS

FREQUENCY

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Making It Clear

Who told the folks in Washington to intervene in the relationship we have with our patients? And who authorized them to do so? If our patients didn't we can assume that our patients — at least — retain the right to stipulate the terms of that relationship. We should inform them about the effects of all this bureaucratic meddling and suggest that they preserve their control of the relationship. As a first step, perhaps the following letter would be appropriate:

Dear Doctor Jones

This is to certify that I, John J. Doe, do hereby select you as my physician and ask you to attend me insofar as you agree and are able to do so. I also certify that I am, according to legal description, an adult person, mentally competent and officially responsible for my personal welfare. My decision to name you as my physician is an act of my own free will and is not the result of coercion, compulsion, duress or undue influence exerted by you.

As my physician you are assured that I have faith in your medical knowledge, your technical skills and your professional judgment. Without forfeiture of my rights or recourse I authorize you to act as my agent in the traditional patient-physician relationship wherein you make decisions for me in matters pertaining to my health and physical well-being. When circumstances permit and options are available to me you will discuss these decisions with me before committing me to a specific course of action. During these discussions you will be candid and thorough, revealing to me all of the facts which pertain to my condition, stating which of the various options is favored by you. I will, in due time and after conferring with various persons of my selection and, when applicable, medical consultants of our selection, advise you of my decision and reservations, if any. The course of action will then be determined through the customary process of negotiation and consent.

Except for the stipulations cited above I specifically expect you to do what you think best in utilizing the diagnostic and therapeutic procedures which you believe are indicated and which are, in your opinion, appropriate to diagnose and treat such physical, mental and emotional disorders as I may suffer. I exempt you, in all your professional dealings with me, from adhering to "guidelines," following "re-

commended procedures," meeting "minimum or maximum standards of care," observing "protocols," "utilization schedules" and whatever other influences now or in the future may become prevalent but which are, in your opinion, without merit. I expect you to practice ethical medicine, to obey all laws and to avoid hypocrisy, deceit and dishonesty.

In addition I solicit the following commitments from you (others may be added from time to time):

That you will not advertise in the manner suggested by the Federal Trade Commission:

That you will not allow pharmacists to make substitutions on prescriptions or hospital orders which pertain to my care:

That you will not subject me to the trouble and expense of diagnostic procedures which are unlikely to yield significant results and/or materially influence my treatment or your ability to provide such treatment:

That you will avoid practicing "defensive medicine" in my case and accept my assurance that I am your patient in good faith, expecting only your conscientious efforts to exercise your best judgment in my behalf:

That you will preserve the privacy of my medical records and refuse to divulge any information contained therein or permit anyone other than you and your assistants access to my records without my specific written consent:

That you will not subject my body to artificial devices which prolong its survival when, in your considered professional opinion my life has come to an end:

That you will obtain consultations *only* when you believe they will assist you in caring for me and/or when I or my next of kin request them:

I understand that this letter is not necessarily a legal document, but it does clearly define and describe my wishes. My signature attests to my unconditional endorsement of these terms and your signature certifies your willingness to accept them for as long as you are my physician and I am your patient. MRJ

A funny thing happened on the way to national health insurance . . . the AMA House of Delegates turned thumbs down.

For the past few years it has been difficult to tell whose side the AMA was on. On the one hand doctors claimed they were opposed to national health insurance as it was the final step toward socialized medicine. On the other hand the AMA went to Congress each year and helped introduce legislation which would do just that . . . provide for national health insurance and the socialization of our profession. Each year the conservative forces of medicine fought a bitter fight to block the introduction of this legislation, but on each occasion our efforts were futile. This year, however, things were different.

As in the past, the stage was set. In a last minute maneuver, the AMA Board of Trustees filed its report, which called for yet another bill to be offered in the name of medicine. Otherwise, they reasoned, Congress won't let us take part in the national health insurance debates and Congressmen throughout the country will be forced to support the Labor bill. What wasn't expected was the wave of conservatism shown by the House of Delegates and a 160-86 vote against the Trustees' report. Swayed by



the debate of Florida physician Dr Joseph C. Von Thron, delegates turned down the AMA position and voted instead for what the constituency wanted.

No national health insurance bill!

For years the Oklahoma delegation has been on the right side of this issue. First of all, I cannot believe that medicine, being the principal component of the health care profession, would not be allowed to take part in the national health insurance debates. Without medicine, there would be no debates. Secondly, I find the argument about an AMA bill giving Congressmen a place to hang their national health insurance hats a somewhat naive argument. If a Congressman is worth half his pay, he won't put his name on legislation which he is philosophically opposed to. By the same token if medicine is the time honored profession which we believe it is, we cannot philosophically prostitute ourselves by introducing legislation which we are opposed to. Can you imagine the squirming which would have taken place had Kennedy endorsed the AMA bill? It would have been very interesting!

According to the action of the House, the AMA can still introduce legislation if it becomes absolutely necessary. For the good of the country and the good of the profession, let's hope that it is not. □

Marvin K. Margo M.D.

The Importance of Regionalized Genetic Centers as a Health-Care Service

NANCY J. CARPENTER, PHD,
KATHRYN JONES, BS,
BURHAN SAY, MD

The increasing number of recognized genetic disorders with multiple modes of inheritance has necessitated the establishment of special genetic centers.

The discipline of medical genetics has grown substantially since Tjio and Levan established the correct number of human chromosomes as 46 in 1956.¹ At that time the medical applications of genetics consisted primarily of counseling a relatively few families with diseases exhibiting Mendelian patterns of segregation. Today, with the disorders showing Mendelian inheritance numbering in the thousands² and with the advances that have been made in determining the precise biochemical and chromosomal nature of many genetic diseases,

physicians may find it increasingly difficult to remain adequately familiar with the relevant knowledge necessary to provide accurate genetic information to their patients.

A well-trained physician should be able to handle questions concerning the causes and risks of recurrence in cases of simple Mendelian, chromosomal, and polygenic disorders such as cystic fibrosis, Down syndrome or Turner syndrome, and cleft lip. A number of textbooks are available to help present facts to inquiring patients.³⁻⁷ Often, however, genetic disorders are complex and require more sophisticated evaluation procedures. For instance, trained cytogeneticists are required to recognize complicated chromosome abnormalities. Some clinical geneticists are particularly skilled in recognizing rare dysmorphogenetic syndromes or biochemical disorders by virtue of their opportunities to see these diseases more often. Physicians should be aware that many genetic diseases with similar clinical features have different patterns of inheritance and therefore different risks of recurrence. For example, disorders diagnosed as muscular dystrophy, retinitis pigmentosa, mucopolysaccharidosis, and hereditary deafness may have autosomal dominant, autosomal recessive, or X-linked recessive modes of inheritance.² Certain genetic diseases are only partially pen-

From the Department of Developmental Medicine and Child Neurology and the Genetic Unit, Children's Medical Center and University of Oklahoma, Tulsa Medical College, Tulsa, Oklahoma 74135.

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etrant, that is, genes sometimes do not produce their usual phenotypic effects, and can have variable expression among members of the same family. These phenomena are confusing to the physician in the diagnosis of genetic disorders. Because the accuracy of the diagnosis carries important genetic and medical implications, a regional genetic center which uses a team approach for genetic evaluation and counseling, and has the expertise to perform the necessary diagnostic techniques can be a resource of great value to practicing physicians.

The Genetics Unit of Children's Medical Center (CMC) is a good example of this type of approach. It provides genetic services for Tulsa and all of eastern Oklahoma. It is part of the Pediatric Department which provides diagnostic evaluations as well as short and long-term treatment. The laboratory facilities include cytogenetic, photographic, and metabolic laboratories. The professional staff consists of a clinical geneticist and a PhD geneticist, three cytogenetic technologists, a metabolic technologist, and physician and cytogenetic trainees.

Patients are referred by private physicians from their offices as well as from the hospitals in the area. Some patients contact the unit on their own initiative. Specimens for chromosome culture are sent from physicians throughout eastern Oklahoma. A Genetics Clinic is available for the diagnostic evaluation, treatment, and counseling of patients with genetically determined disorders. Special clinics are also available at CMC specifically for treatment of children with cleft palate, spina bifida, phenylketonuria, and muscular dystrophy.

For diagnostic purposes, the Genetics Unit provides chromosome studies, dermatoglyphic analyses, buccal smears for sex determination, hand pattern profile analyses, and tests for disorders of amino acid metabolism. The cytogenetic laboratory is equipped to culture cells from peripheral blood, bone marrow, and amniotic fluid, using various banding techniques for accurate chromosome identification. Dermatoglyphic analysis, while seldom the sole basis for a diagnosis, can provide important information.⁸ A buccal smear for detection of the Barr body or fluorescent Y body aids in the search for possible abnormalities in the

number of the sex chromosomes and in the detection of mosaicism. Hand pattern profile analysis, the study of the long bones of the hand, is an important diagnostic tool for an increasing number of genetic syndromes.⁹

After diagnostic studies are completed and management of the patient has begun, the genetic staff discusses with the patient's family the prognosis, prospects for treatment, and the recurrence risks of the disorder for immediate, as well as distant, relatives at risk. Also the possibilities are discussed for prenatal diagnosis of future pregnancies. A report is sent to the referring physician summarizing the findings and suggestions.

Children's Medical Center is one of two facilities in the state which offers prenatal diagnostic services to families with an increased risk of having a child with a genetic disorder. The determination of the alpha fetoprotein level, mainly for the detection of neural tube defects, as well as the chromosome analysis are done on every amniotic fluid specimen, however arrangements are made with other laboratories for special biochemical tests. For physicians interested in detailed information, several excellent reviews are available on this subject.^{10, 11}

Since 1974, over 1000 chromosome cultures from peripheral blood and bone marrow specimens have been done in the cytogenetic

Nancy J. Carpenter, PhD, was graduated from the University of Michigan in 1972 and is presently assistant professor of zoology at the University of Tulsa and clinical assistant professor of pediatrics at the Tulsa Medical College. She is a member of the American Society of Human Genetics and the Genetics Society of America.

Kathryn D. Jones, BS (ASCP) was a 1974 graduate of Oklahoma State University. She is a member of the American Society of Medical Technologists and the Association of Cytogenetic Technologists.

A graduate of the School of Medicine, University of Istanbul, Turkey, Burhan Say, MD, is presently clinical associate professor of pediatrics at the University of Oklahoma Tulsa Medical College. He holds memberships in the European Society of Teratology, the European Society of Hematology and Immunology and the International Society of Hemophilia.

Table 1

Chromosome Studies 1974-77

	1974	1975	1976	1977	Total
Patients	114	179	232	344	869
Male	63	93	139	199	494
Female	51	86	93	142	372
CMC	54	103	141	262	560
Referral	60	76	91	111	338
Parents, Sibs, etc.	22	34	44	31	131
Total	136	213	276	372	997

laboratory at Children's Medical Center.^{12, 13} Referral patients from outside CMC accounted for 34% of the cultures and the number of these patients has steadily increased over the past four years. (Table 1) The most common reasons for referral are congenital malformations and mental retardation observed in pediatric patients, and hematologic and endocrine disorders, sexual developmental disorders, and multiple miscarriages observed in adult patients.

A summary of the results of chromosome cultures on 997 patients completed between January 1, 1974 and January 1, 1978 is shown in Table 2. Included in the major autosomal aberrations (8.7%) were trisomies 13, 18, and 21, and deletions of the #4 and #5 chromosomes (Wolff-Hirschhorn syndrome and Cri-

du-chat syndrome). Thirty-six sex chromosome anomalies (3.6%) have been found including two patients with testicular feminization syndrome. Twelve of twenty-two bone marrow cultures were positive for the Philadelphia chromosome, an indicator of chronic myelogenous leukemia. An on-going study of minor chromosome variants in children with psychiatric disorders has shown variants in 92 of 250 patients (36.8%).¹⁴

Members of the Genetics Unit are involved throughout the year in lecturing to promote better understanding of human genetics in community organizations and educational institutions including both of the area universities, as well as the University of Oklahoma Tulsa Medical College, and the Oklahoma Osteopathic College of Medicine. It is hoped that additional funds will be available in the future for training personnel at various levels in clinical genetics. On-going research includes studies of chromosome variants in psychiatric patients, hand pattern profile analysis as a diagnostic tool, chemical induction of sister-chromatid exchanges in human chromosomes, and the clinical delineation of new syndromes.

The Genetics Unit has been fortunate to be the recipient of grant support from the Ok-

Table 2
Abnormal Karyotypes Encountered

	1974 (25)	1975 (32)	1976 (29)	1977 (27)	Total
A. Autosomal					
4p- (Wolff-Hirschhorn Syndrome)	—	1	—	—	1
5p- (Cri-du-chat Syndrome)	1	1	—	1	3
5q- (Mosaic)	—	1	—	—	1
+C	1	—	—	—	1
+C,+G	—	1	—	—	1
+8 (Mosaic)	—	—	—	1	1
+13 (Trisomy 13)	1	1	2	—	4
17q+	—	—	1	—	1
+18 (Trisomy 18)	—	—	1	2	3
20q+	—	1	—	—	1
+21 (Trisomy 21)	7	12	10	18	47
+21 (Mosaic)	1	1	1	—	3
22q- (Philadelphia Chromosome)	—	2	5	5	12
+Mar	1	1 (cat eye)	1	—	3
Translocations (3:15, 3:5, 13:13)	3 (1 balanced)	—	2 (1 balanced)	—	5
	15	22	23	27	87
B. Sex Chromosomal	1974	1975	1976	1977	Total
X (Turner Syndrome)	6	4	2	1	13
X/XX (Mosaic Turner Syndrome)	—	2	—	1	3
(X/Xi(Xq))	—	—	—	1	1
X/XY (Mosaic)	—	—	1	—	1
XXq- (Turner Variant)	—	1	—	—	1
XXY (Klinefelter Syndrome)	3	2	1	3	9
XXYY (Klinefelter Variant)	1	—	—	—	1
YYY	—	1	1	2	4
XY (Mosaic 46/47/48)	—	—	1	—	1
XY (Testicular Feminization)	—	—	—	2	2
	10	10	6	10	36

lahoma State Department of Health for equipment and from the National Foundation — March of Dimes for personnel and supplies.

Because of the specialized nature of many of the diagnostic tests for genetic diseases and the multitude of supportive services required by children affected with such disorders, there has been a nationwide trend toward regionalization of genetic services into medical genetic centers. In some states, smaller localities far from major medical centers are served by "satellite" clinics. Geneticists visit those communities regularly for consultation with local physicians and with patients and their families. An International Directory of Genetic Services (Fifth Edition) can be obtained from the National Foundation — March of Dimes which lists over 200 centers available in the United States in 1977. While many patients can be diagnosed and counseled by the primary physician, those patients who have rare syndromes or require sophisticated diagnostic tests should be referred to a medical genetics center.^{15, 16} In the four years of operation of the Genetics Unit at CMC, this approach has appeared to work well in providing genetic services for patients and their families in eastern Oklahoma. □

ACKNOWLEDGEMENT

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Burhan Say, MD, Children's Medical Center, P.O. Box 35648, Tulsa, Oklahoma 74135.

Osteomyelitis

ANNE MacADAM, MD
Intern

HARRIS D. RILEY, JR., MD
Professor of Pediatrics

J. VANHOUTTE, MD
Chief, Pediatric Radiology

THOMAS RUBIO, MD
Clinical Associate Professor of Pediatrics

PAT EVANS, MD
Clinical Assistant in Orthopedics

INGOMAR MUTZ, MD
Fellow in Pediatric Hematology-Oncology

Although the incidence of osteomyelitis has decreased in recent years, the decrease has not been as great as most physicians believe.

Osteomyelitis continues to be a serious disorder. This article reviews various facets of diagnosis and treatment.

DR MacADAM: The patient, an 8-year-old Negro boy, was admitted to the Pediatric Service of Children's Memorial Hospital on May 19, with a history of pain in his right ankle of five days' duration. This was accompanied by fever (temperature of 40.0°C) beginning on the second day of illness. Treatment was begun on

the third day by his private physician, who felt that the patient had septic arthritis. He was referred to this hospital on the fifth day, after two days of therapy with penicillin and ampicillin with little response.

On admission, the patient's temperature was 38.4°C. Physical examination revealed a well-developed, well-nourished boy with a hot, tender, swollen, and indurated right ankle. The area of involvement extended to the upper portion of the right calf. Both inguinal and axillary nodes were palpated on the right. The patient kept his right knee flexed at approximately 30° and tended to keep it immobile. The only other abnormal physical finding was a grade II/VI systolic murmur heard at the base and left sternal border. Blood was drawn for cultures, and intravenous therapy with 600,000 units of penicillin and 325 mg of oxacillin every six hours was begun. X-ray films obtained on admission showed marked soft tissue swelling over the right foot, ankle, and lower leg, but there was no evidence of bony involvement. An orthopedic consultation was obtained on May 21 and May 23. Because the patient was responding only very slowly to therapy, he was taken to the operating room for exploration of what was thought to be a septic joint.

During surgical exploration, the fibula was found to be grossly involved in the septic process. Cultures were taken of both joint fluid and fibula and the wound was left open and packed. Culture of material from the fibula subsequently grew out coagulase-positive staphylococci. Post-operatively, the dose of oxacillin was increased to 1,000 mg administered intravenously every six hours. Penicillin was discontinued the next day, after sensitivity studies were completed. The wound healed

From the Department of Pediatrics, the Children's Memorial Hospital, University of Oklahoma Health Sciences Center, Oklahoma City, Oklahoma.

well during the next two weeks. The patient was afebrile except for one spike in temperature to 38.5°C on May 29. On June 15 the right leg was placed in a long-leg walking cast and the patient was discharged on a regimen of oral sodium oxacillin (Prostaphlin). On June 30 the patient was seen in the Outpatient Clinic for follow-up. The wound was almost completely healed by this time. An x-ray film showed multiple small areas of bony destruction in the distal fibular metaphysis. These were associated with periosteal elevation and formation of new bone. Mild osteoporosis noted was thought to be secondary to immobilization. He is presently in a short-leg walking cast and is continuing to take oxacillin.

DR RILEY: Dr MacAdam, for how long in his treatment did he receive penicillin G?

DR MacADAM: Administration of penicillin was begun on May 17 and continued until May 25. The oxacillin was started on May 19 at a dose of 325 mg. This was increased to 1,000 mg every six hours on May 24.

DR RILEY: That was administered parenterally?

DR MacADAM: Yes, intravenously.

DR RILEY: And he continued on that for how long?

DR MacADAM: He continued to receive antibiotics parenterally until June 16, when he was discharged.

DR RILEY: For one month. And then he received oral doses of oxacillin?

DR MacADAM: Yes.

DR RILEY: Dr Vanhoutte, do you have x-ray films?

DR VANHOUTTE: A frontal view of this patient's right ankle obtained three days after admission is shown in Figure 1. The soft tissue swelling is quite evident along the lateral aspect of the ankle. The normal margination between the subcutaneous tissues and the muscle mass is also obliterated. At this time no gross alterations are present in the bony structures.



Fig. 1: Roentgenogram of right ankle taken three days after hospitalization of patient.

Comparing the trabeculation in the fibula with that in the tibia, slight effacement of the crisp trabeculation is present in the fibula.

The frontal view in Figure 2 was obtained five weeks later. Focal trabecular destruction is now evident within the fibula. The periosteum has been stripped away from the cortex by the exudate and reactive periosteal new bone formation is in progress. Sequestrum formation is not evident.

DR RILEY: Thank you, Dr Vanhoutte. Are there any questions for Dr MacAdam about the patient, or for Dr Vanhoutte? Of course, osteomyelitis is a disease the incidence of which has declined in recent years. Yet the decrease is not as great as we often think. We surveyed the cases at this center over a period of several years and, although there was a distinct decrease in incidence in recent years, nearly every month there was at least one patient with osteomyelitis on our wards.

There are several points which I would like to emphasize. The first concerns the difference between the disease in the infant and young child and the disease in the older child. The great majority of all cases of osteomyelitis occur in children between five and fifteen years of age, although, of course, it can occur at any age. In the young child there are many differ-



Fig. 2: Roentgenogram of right ankle obtained five weeks later.

ences; the difference in etiology, which I am sure Dr Rubio will discuss, and the differences in radiological appearance and in the time of appearance of the x-ray findings after infection, which Dr Vanhoutte has mentioned.

I would like to stress that the management of this disease should be a joint undertaking. Every patient with this disease should be seen jointly by the pediatrician and the orthopedist. The majority of the patients with acute osteomyelitis that we reviewed were seen first by the pediatrician or by the family physician. Osteomyelitis can mimic so many different entities that, if you were to examine the differential diagnoses in any large series of cases of proved osteomyelitis, you would find anywhere from 15 to 20 different possible diagnoses listed. Also necessary in the management of osteomyelitis is flexibility, since there is no prescribed regimen accepted as the standard for the management of this disease, the duration of the illness, and the manifestations of the disease (in terms of abscess and various types of bone involvement, which Dr Evans will discuss). Dr Rubio, do you want to begin?

DR RUBIO: I would like to discuss several items that will be based on review of the literature as well as of our own personal experience, particularly in this hospital. I think that Dr

Riley's comments on the importance of our cooperative effort in the management of this disease are very pertinent. We are very fortunate at this center in that the cooperation between the pediatric and orthopedic services in the management of these patients has been excellent.

The pediatrician is very frequently involved in the early diagnosis of a large segment of cases of osteomyelitis, particularly osteomyelitis secondary to a hematogenous process. Hematogenous osteomyelitis occurs much more frequently in children than in adults, because of the bone growth accompanied by an active metabolic process of bone, as we will review later. The diagnosis usually is not difficult to make, but occasionally it can be complicated. I think that one should use the following criteria. The diagnosis should be based on radiologic changes of the bone and histologic changes observed by biopsy of the bone, and it should be corroborated by bacteriologic findings. However, in a number of cases, all three criteria cannot be proven. Nevertheless, one would like to have at least two of these three criteria to make a diagnosis of osteomyelitis.

According to Dr Trueta, there is a pathophysiologic explanation of why osteomyelitis occurs with a hematogenous process and why there is a difference in the way osteomyelitis presents in the various age groups. In children between the age of one year and puberty, when the bone is growing and when there is an active metabolic process occurring in the growth plate, the growth plate divides the bone between the epiphysis and metaphysis. This plate prevents the spread of infection into other parts of the bone. In the metaphysis the arteries are terminal ones without extensive anastomoses. The focus, as it grows, erodes the bone, progresses laterally, and may extend as far as the periosteal area. A protruding area of the periosteum may appear, perhaps an abscess formation, then later on one sees an immediate formation of bone with periosteal stimulation and also formation of involucrum. In contrast to this pathogenic mechanism, in young infants (less than one year of age) some of the vessels cross the metaphyseal growth plate there and may cause hematogenous spread of infection into the epiphysis with subsequent involvement of the joint. Of course, this would also explain cases of hematogenous involvement of the epiphysis in the adult, when the growth plate has been

reabsorbed, permitting the spread of the infective process into the epiphysis and then into the joint. Exceptions to this pathogenetic theory have been formulated. Although hematogenous osteomyelitis is seen predominantly in the young child and in adolescence, one often sees involvement of the joint even in children one to sixteen years of age, probably because of the rupture of the periosteum and then, particularly, of the synovial capsule.

Staphylococcus aureus is the most common etiologic agent in hematogenous osteomyelitis. Other organisms can also be found, including *S epidermitis*. Occasionally a hemolytic streptococcus, group A can be seen. Among the gram-negative organisms, the most commonly found is *Salmonella* in patients with hemaglobinopathies. In spite of a marked increase in cases of gram-negative septicemia, we have not seen a parallel increase in osteomyelitis caused by gram-negative organisms. This is an interesting aspect and we do not have a good explanation for it. In general, among all the enteric bacteria, klebsiella is the most destructive of all in osteomyelitis.

At this point, I would like to emphasize the importance of trying to identify the cause by all possible means. Probably each of the following techniques should be used in each patient. (1) Cultures of the blood are very useful. In our experience with osteomyelitis, the blood culture, when properly obtained, was positive in over 60% of cases. The blood cultures should be obtained before any antibiotics are started. (2) All efforts should be made to obtain a biopsy of the bone lesion, either by needle aspirate or by surgical means. An orthopedic consultation should be obtained at once to help obtain a good biopsy of the bone. If drainage is already present it should be cultured. This will be particularly helpful in the recurrent type of osteomyelitis.

The clinical manifestations of osteomyelitis are tenderness, fever, limitation of motion, heat, and erythema. Drainage, if it is present, suggests osteomyelitis. If osteomyelitis involves the vertebral bodies, paraplegia or even meningitis can be present, and this would make us think of this possibility. It is important to point out that fever is not present in all cases of osteomyelitis. As a matter of fact, in about 20% to 21% of the cases, fever may not be present; this is particularly true in the recur-

rent type of osteomyelitis. In the hematogenous type, in the primary episode, occasionally fever may not be a presenting sign, or at least not a high fever. There may be a mildly elevated temperature — below 38.9°C or so.

In discussing osteomyelitis, it is important to distinguish a first episode of primary hematogenous osteomyelitis from a recurrent type of osteomyelitis. I would like to focus a little more on hematogenous osteomyelitis, which is perhaps the kind that the pediatrician will encounter the most frequently, and I would like our orthopedic consultant to go into more detail about the management of the recurrent and chronic types. I will leave the discussion of osteomyelitis of secondary causes other than hematogenous spread also to our orthopedic colleagues. I am referring to the hematogenous spreading secondary to a contagious lesion or secondary to surgery, or hematogenous spreading associated with vascular necrosis and so forth.

If we review our results, as well as the published results of others, of the treatment of hematogenous osteomyelitis with antibiotics, we will see that there is a marked difference between cases treated adequately and cases treated inadequately. There is a marked difference between the results obtained when the patients are treated before the third or fourth day of clinical manifestations of osteomyelitis and the results obtained when patients are not treated until five or more days after the onset of clinical manifestations. In many cases of osteomyelitis that were diagnosed on the first or second day and treated immediately with antibiotics, the diagnosis probably was never confirmed radiologically because one can abort entirely an osteomyelitis and have no radiologic changes, or minimal radiologic changes, later if antibiotics were started very promptly.

What can be considered adequate antibiotic therapy? In general, for children I would think that since *S aureus* is by far the most common cause, one should always include antibiotic coverage for this organism from day one. In primary hematogenous osteomyelitis cases seen for the first time in this hospital, 50% of the staphylococcus strains recovered were resistant to penicillin. So, either oxacillin or methicillin, or one of the cephalosporins, should be started immediately. If the patient is a newborn infant, of course, coverage with an aminoglycoside is advised. Now, what would be the recommended dose for an adult or for an

adolescent that we have seen here? For adolescents, one of the most common age groups for occurrence of hematogenous osteomyelitis, the dose of methicillin or oxacillin would be six to eight gm daily intravenously. For a younger child, the dose would be 200 mg/kg/day, with a limit of eight gm divided into a reasonable number of doses, four or six, intravenously. One would certainly like to give medication parenterally as long as the clinical manifestations are present, particularly if tenderness or fever is evident. Once these subside, one may shift to an oral route later on, provided that the patient is followed very closely and that there is frank improvement by all parameters. Adequate treatment should include at least three or four weeks of antimicrobial therapy. The percentage of recurrences increases rapidly when one decreases this length of time; length of treatment is an important factor. If one identifies the causative agent, then of course a specific antibiotic for this agent, guided by the sensitivities *in-vitro*, should be given. In spite of adequate therapy, at least 10% of primary hematogenous osteomyelitis cases may not result in complete cure. Then, the results of therapy for the relapses will also depend on adequate therapy and adequate surgical drainage. Whether surgery should always accompany the antibiotic therapy or not has been the subject of group debate. If there is an abscess or sequestrum formation, drainage should be performed. In general, we have been aggressive in draining and in cleaning the areas involved as well as possible, and this, of course, is accompanied by adequate antibiotic therapy. This seems to be very important also in the cases of recurrent osteomyelitis. If the results of antibiotic treatment of recurrent osteomyelitis are to be good, treatment must be intensive and prolonged.

In contrast to the markedly increased incidence of hematogenous osteomyelitis in childhood years, secondary osteomyelitis (secondary, say, to wound infection or contagious septic focus) occurs most often after age 40, and particularly between 40 and 60 years of age. The etiology in the recurrent chronic cases, and particularly in the cases secondary to contagious focus, is important to review. It is not uncommon to obtain at least two or three organisms on culture. Then one has to decide whether only one of the organisms plays an important role and the others are only secondary invaders, or whether the secondary in-

vader is so important that it should also be covered with antibiotic treatment. It is also important to point out that blood cultures in these cases are not as frequently positive as in hematogenous cases; of course, this could be expected. On the other hand, cultures of the draining sinus or the draining wound are very helpful in these cases. As a matter of fact, in the two major series that I have had a chance to check, repeated cultures of the drainage material coincided almost 100% with the cultures obtained by biopsy of the bone. Therefore, in instances where the biopsy or surgery is delayed for one or two days, for whatever reason, one could safely begin treatment in the meantime based on the results of the cultures obtained from the drainage.

DR EVANS: Thank you, Dr Rubio. I would like to emphasize a few points that Dr Rubio has made and then present an orthopedist's viewpoint on this condition. First of all, it's very important to realize that the pediatrician or the family physician usually sees this condition first — over 90% of the time, in fact. The difficulty comes when you see a child with a painful knee, and as with almost all children when you first see them, there will be a history of falling or other trauma. You will take an x-ray film and there will be soft tissue swelling. So, then you have to decide whether you actually do have an infection, or whether you have simply trauma from bleeding in the tissues. What may also be confusing is that any type of bleeding in the soft tissues will produce some fever; so that, then, also becomes a diagnostic problem. In this regard, I would say that if you have any suspicion whatsoever that there is infection present, by all means take the culture. I think that in this case no mention was made of a culture being taken initially before antibiotics were started, and an early culture, of course, would have been quite helpful.

I would like to review the pathophysiology of osteomyelitis a bit more. As Dr Rubio pointed out, it most frequently occurs in children in the metaphyseal area because the epiphyseal plate acts as a barrier; the infection, if it starts in the metaphysis, cannot penetrate into the epiphysis but, as it expands, must be directed elsewhere. That is the reason for the difference in the clinical picture that you will see in the young child, say less than two years old, as opposed to the child from two to sixteen years old. The periosteum in this area is quite firmly

adherent and it is difficult for anything to perforate it. But as the infection grows in this area, it produces necrosis and the bone locally will die. It has to expand down the shaft then, and it will do this in the child from two to sixteen because the cortical bone here is so strong that it can't go that way. In the younger child, however, the cortex is softer and it is very easy for the infection to perforate out through the cortex and then elevate the periosteum but not go past this to the joint. The exception to this is in the large joints, particularly in the hip, and this is quite important. If you will remember, the epiphysis for the hip joint is actually intracapsular, so that if the infection perforates in this area it immediately involves the hip joint. The other problem is that this often occurs at a time when the epiphysis is not yet visible on x-ray examination, and you cannot tell whether the joint is dislocated or not; if it is, it is really an orthopedic disaster. In the adult the periosteum is firmly adherent and the epiphyseal plate no longer exists, so that osteomyelitis can occur at any point in the bone in the adult.

Regarding treatment, we too feel that the staphylococcus organism is so prevalent (present in from 60% to 85% of cases) that antibiotic therapy absolutely must cover penicillinase-resistant organisms. We prefer oxacillin, methicillin, or one of the cephalosporins as our first choice. One possible area of disagreement between the pediatrician and the orthopedist concerns when surgery is indicated in the treatment of osteomyelitis, and we have already alluded to that. There is no specific answer that I can give you as to when it is indicated. Our feeling is that if you have a very sensitive organism that responds very rapidly and you have no evidence of progression on your x-ray films, surgery would not be indicated (other than aspiration, which we will assume always precedes the start of our treatment). If you have evidence of a dead piece of bone, the sequestrum, that will not be cured by antibiotics, we would feel then that if there is a rapid clinical response, and if treatment were started early, there certainly would not be a need for surgical intervention in every case. On the other hand, if we are going to err, we would prefer to err on the side of opening and draining early both for diagnosis (to obtain cultures) and to have free drainage. We do not feel

that these areas, particularly when they have been walled off, respond well to antibiotics. We think that antibiotics are most useful in preventing the spread of infection to surrounding, healthy tissue where we do have satisfactory concentration of the antibiotics. We consider septic arthritis, particularly of the hip, an emergency and feel that it should be drained and left open. There has been some recent work using immediate closure of wound and application of irrigation and suction apparatus that has the advantage of not having an open wound that has to gradually close. It has the disadvantage, however, of prolonged treatment that is difficult to maintain simply because it is difficult to keep tubes open for weeks at a time. Also there is the possibility of secondary contamination with gram-negative organisms.

The basic principles that the pediatrician should be aware of in the treatment of osteomyelitis are that, when you suspect osteomyelitis, you should obtain cultures and you should treat the part completely by rest, elevation, and heat. If you can't put a splint on, have someone else do it. We feel that it is very important to splint the involved area. Surgery, as I said, is sometimes indicated, but that has to be decided individually in each case.

The other question on which the orthopedist and pediatrician may disagree concerns the length of treatment. I don't think any of the orthopedic staff will disagree with Dr Rubio's conclusions that prolonged parenteral antibiotic therapy is the method of choice. The problem, though, is that it is not always feasible in some of the less severe cases. Our general policy has been that, if symptomatically the patient is afebrile and having no particular difficulty with continued pains, swelling, or even elevation of the sedimentation rate, at that point we frequently will treat him on an ambulatory basis with oral antibiotics. As far as bone abscess formation is concerned, we feel that when there is free pus at any point, whether it is in the bone or anywhere else, it needs to be evacuated.

DR RILEY: Thank you, Dr Evans. I have several comments. First, Dr Evans' approach is certainly one with which I would be in complete agreement. As I mentioned earlier, what constitutes appropriate management must be determined individually for each patient.

Secondly, I would like to suggest a relationship between septic arthritis and femoral venipunctures. In our experience, in practically

every case of septic arthritis in a young infant we found that the patient had had a femoral puncture at a time that would be chronologically compatible with the occurrence of septic arthritis. Therefore, I think that this route should be used only when you cannot obtain blood from any other site.

Another point that I would like to emphasize is the etiologic role of group A streptococcal infections in infants and children under the age of two years. Although *Staphylococcus* is the most common cause of osteomyelitis in patients under two, you still see a substantial representation of group A streptococci. I would also emphasize that we are seeing more cases of soft tissue infection and arthritis, as well as a few cases of osteomyelitis, due to *Hemophilus influenzae*.

Finally, the masking of osteomyelitis by previous inadequate antibiotic therapy is a very common problem. As Dr Evans pointed out, the need to differentiate between cellulitis and an osteomyelitis is a frequent problem. It is often very difficult. I would agree that if you are going to make a mistake, it is better to err by over-treating a patient with cellulitis than to undertreat a patient with osteomyelitis. If you look at all clinical entities due to staphylococcus, the staphylococcal causative agent involved in osteomyelitis was the last group, generally speaking, to develop resistance. Yet in the last several years, without exception, every case of staphylococcal osteomyelitis that we have seen has been due to a penicillin G-resistant strain. I cannot emphasize enough the importance of starting out with specific anti-staphylococcal drugs. I have some data from an old study, but I think they emphasize a couple of points. Table 1 shows the results of chemotherapy in 99 cases in children

TABLE 1
MORTALITY IN RELATION TO
CHEMOTHERAPY IN 99 CASES OF
OSTEOMYELITIS, 1924 - 1954*

Therapy	No. of patients	Deaths No.	%
Pre-sulfonamide	58	18	31
Sulfonamide	16	1	
Penicillin and sulfonamide	11	2	7
Penicillin	4	0	
Multiple antibiotics	10	0	
Totals	99	21	21

*adapted from Green¹

TABLE 2
RESULTS OF THERAPY in 99 CASES
OF OSTEOMYELITIS, 1924-1954*

Therapy	No. of patients	Deaths	Morbidity
Supportive only	6	1	1
Surgery only			
(a) bone	33	12	14
(b) soft parts	19	5	5
Surgery and chemotherapy			
(a) bone	14	0	8
(b) soft parts	3	0	0
Chemotherapy alone	24	3	0
Totals	99	21	28

*adapted from Green¹

**Morbidity = chronic draining sinus > 3 mos; residual deformity; chronic osteomyelitis > 1 yr; or multiple exacerbations.

treated from 1924 through 1954. You can see the importance of antimicrobial therapy by the dramatic improvement in results with the introduction of sulfonamide, penicillin, and other drugs. Before that time, of course, all we had was surgical drainage and symptomatic or supportive therapy. Table 2 also illustrates that — with surgical drainage alone — the results were not very good. It was only with the combination of surgical therapy and chemotherapy that our better results have been achieved. Any questions of our speakers today?

STUDENT: Would you clarify what you mean by taking a culture when you first see the child?

DR RILEY: Go ahead, Dr Evans.

DR EVANS: In most cases, particularly in young infants, you can simply do a surgical prep of the tender area and just aspirate. Now, if it is beneath the periosteum, you will get free pus. In a small child, if necessary, you can perforate the cortex of the bone with the needle also with no problem and actually culture intramedullary contents, but that would be all I would do initially unless the patient was febrile, in which case I think blood cultures should also be done.

DR RILEY: We are emphasizing the need to get multiple blood cultures. Roughly two-thirds of the patients with hematogenous osteomyelitis have positive blood cultures. Any other questions?

ORTHOPEDIC INTERN: I would like to comment. Dr Evans, I thought, was alluding to this when he was talking about the painful knee in that one should not overlook referred pain. If the patient is having symptoms regarding the knee and your examination of the knee and the x-ray films are normal, the next thing to do is to x-ray the hip on that side. Evaluate it from the standpoint of referred pain. Some of these abscesses from the hematogenous spread will develop first in the periosteum, and you will have an extra-cortical abscess which will produce severe pain until it ruptures through the periosteum or goes through the cortex of the bone. I think that in some of these cases where we see a lot of induration, fever, and pain, we need to be a little more aggressive in trying to get an aspiration of this subperiosteal abscess. Anyone can make the diagnosis in this area after the bone changes take place, 10 to 12 days later. But I think that it behooves us to be more aggressive in getting an aspirate of the subperiosteal abscess if possible.

I would like to ask Dr Rubio to comment on what is the most common primary site as far as seeding a hematogenous spread. Also, what is the role in chronic osteomyelitis of L forms of bacteria? Will you also describe the method of identifying these organisms?

DR RUBIO: In regard to your first question concerning primary hematogenous osteomyelitis in children, the most common port of entry is the skin, *ie*, small wounds; it doesn't have to be a very conspicuous lesion. It can be a very minor lesion that by history, later on, might be difficult to elicit, and only by careful questioning would one be able to obtain this information. In a relatively small number of cases no port of entry could be determined; of

course, there must have been a very small one, unnoticed by the family. In regard to your second question on L forms of bacteria, it is a good one and I don't know the answer. Some have cited this as a reason for needing coverage with antibiotics that would be active on the bacterial cell body rather than the wall. The penicillins primarily act on the cell wall; consequently, theoretically, and, according to some, also in practice, some of the organisms, as the infection becomes chronic, could revert to an L form, namely a known cell-wall-type of organism. To be effective against this type of organism, one should then act with bacteriostatic antibiotics. The macrolids have been used successfully in the treatment of osteomyelitis, and one could speculate that they may be useful in the treatment of L forms of organisms. In general, the macrolids have not been considered as effective as the penicillins, particularly in studies in this country. As to whether L forms play a role in chronic osteomyelitis or not, I don't think that has been well established, although there are isolated reports that this may be one of the causes for chronic osteomyelitis. More research is needed to clarify the facts.

DR MUTZ: I would like to mention that especially in young children and infants, one should consider an immunologic work-up because osteomyelitis may be the first manifestation of an immunologic deficiency syndrome.

DR RILEY: Yes, that is a good point. I think that we are overtime, so we will stop. Let me thank the speakers. □

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Scalpel In A Saddlebag: The Story of a Physician in Indian Territory; Virgil Berry, MD

IV. From Territory to Statehood

MARGARET BERRY BLAIR
with the collaboration of
R. PALMER HOWARD, MD

In 1889 as new settlers poured into the Indian Nations, Virgil Berry began as a student "doctor" in Chouteau and after graduation practiced in Wagoner. He was the National Physician to the Seminoles for a few years before the opportunities in the new railroad settlement of Wetumka attracted him to locate there. Rapid advances were also taking place in general medical knowledge and in the professional organization of American medicine. Dr Berry's abilities grew simultaneously with the socioeconomic and political changes in the Territory as well as with the mature development of the Indian Territory Medical Association. He was elected president of the association at the 1905 meeting in Tulsa.

Virgil Berry represented the ITMA in May, 1906, during the amalgamation with its counterpart in Oklahoma Territory, to form the Oklahoma State Medical Association. His experiences after Oklahoma Statehood will be recounted in this final installment.

Reprints of the entire manuscript will be available subsequent to the publication of the concluding installment. Separate-installment reprints are not available. Requests for reprints will be acknowledged only after the publication of the final installment. Address requests c/o Dr R. Palmer Howard, History of Medicine Program, OUHSC, P.O. Box 26901, Oklahoma City, 73190.

The year 1905-06 was especially significant, because the political tides in Washington finally turned in favor of statehood for the territories. President Theodore Roosevelt announced his preference for the admission of the Oklahoma and Indian Territories as a single state. With this prospect, representatives of the two Territorial Medical Societies also met to consider uniting, and of course Virgil was involved. On March 20, 1906, he presided over a special meeting of the ITMA in South McAlester. (Fig. 3) The purpose was to discuss the proposed amalgamation and to lay the groundwork for simultaneous business meetings of the societies to be held in Oklahoma City, at which amalgamation, if approved, might be effected.¹⁵

Virgil labored mightily over the address he was to give the following May at the joint meeting of the Territorial Societies in Oklahoma City. There was so much he wanted to say at this closing of one era and the beginning of another — things that would express his own hopes and dreams for medicine in the new state as well as promote harmony for working together toward the common cause of medical advancement. Above all, his wish was to avoid legal licensing of the poorly educated medical practitioners and pharmacists. When he practiced the speech before Emma Kate, she tried to get him to "tone it down" in the strongly accusatory parts about "quacks and patent medicines." But it was not in Virgil's nature to be moderate when he was espousing a cause.

May, 1906, did finally come. Rising at the

meeting with his neatly clipped mustache exactly the right professional length, his black string tie (Emma Kate made all of his ties) in a precise, horizontal bow, and his stomach feeling quite unreliable (he indicated later) he cleared his throat, took a deep breath and began. He must not have been too badly received. At any rate the two territorial Societies were amalgamated into the Oklahoma State Medical Association, and Doctor A. K. West and he were elected delegates for two years to the meetings of the American Medical Association.^{3, 16}

On the second of March, 1908, Certificate #1800 was received by Virgil authorizing him to practice medicine in the new state of Oklahoma. Across the license was written: "Approved November 16th, 1907," now recognized as Statehood Day.

Virgil's contentment would have been complete, absorbed as he was in his growing practice, if the signs had been more portentous for Wetumka becoming the county seat. Sad to say, that did not happen. The Holdenville forces were larger and it is possible that Wetumka backers simply did not have lobbyists in the right places. In any case, the county seat did go to Holdenville and Virgil said to his banker friend, H. H. Holman, "There goes our hospital."

The seed of discontent was planted. Virgil started looking beyond the horizon of Wetumka for a more likely place in which to establish a hospital and put down permanent roots. He did not want to go far, but the place must be a county seat with growth potential to support a hospital. In the Spring of 1908 he heard through railroad friends favorable talk of Okmulgee, forty miles to the north. It had become the county seat of Okmulgee County, and a scouting trip up there convinced him that the signs were right for it to become a progressive city.

December 24th, 1908, the *Wetumka Gazette* carried the following:

Dr. V. Berry and family left this week for Okmulgee, where he will continue practice, devoting his time principally to surgery. He expects to establish a sanitarium at Okmulgee

As usual Virgil had planned ahead. Between March and December he had bought a lot and a two-story house was nearing completion in Okmulgee, when on New Years Day, 1909,

VIRGIL BERRY, MD

Chronology

IV. From Territory To Statehood

- March 20, 1906—Presided at the special meeting of the Indian Territory Medical Association, South McAlester; this was called to consider approval of amalgamation with the medical association in Oklahoma Territory.
- May 8, 1906—As president of Indian Territory Medical Association, was in the chair at the Scientific Session of the Joint Meeting of the Indian Territory Medical Association and Oklahoma Territorial Medical Association in Oklahoma City. Responded to the Address of Welcome delivered by Dr A. K. West of Oklahoma City. On the same morning Dr Berry delivered the Annual Address as President of the ITMA to the Scientific Session. This was published in the *Transactions* of the meeting.
- May 9, 1906—After amalgamation of the two territorial associations was consummated, Drs V. Berry and A. K. West were elected delegates to the AMA meetings for 1907 and 1908.
- March 2, 1908—Received certificate to practice in the State of Oklahoma as approved by the proclamation granting statehood, Nov. 16, 1907.
- Jan. 1, 1909—Relocated in Okmulgee. Later in the year opened a temporary hospital at 515 S. Muskogee Street.
- 1916—Formed Okmulgee Clinic with Drs W. C. Mitchener and J. E. Bercaw.
- Oct. 26, 1917—Elected Fellow of the American College of Surgeons.
- Nov. 5, 1917—Commissioned in the U S Army Medical Service.
- Dec. 5, 1918—Honorable discharge as Captain, USA Medical Service.
- 1918—Okmulgee City Hospital opened at 921 Okmulgee Avenue.
- 1920—Retired from active practice.
- March 11, 1954—Died at Okmulgee, Oklahoma



Indian Territorial Medical Association, members and guests. Special meeting at Masonic Hall, McAlester, March 20, 1906. President Berry is the first from the left on the second row.

Emma Kate, Karl, Homer, Ruth, Margaret and Virgil boarded the northbound morning Frisco for their new home at 603 South Seminole. Margaret still remembers how charmed she was with indoor plumbing.

Since Virgil had done surgery for a number of people from Okmulgee while he was in Wetumka he was not unknown. Almost immediately, he had a thriving practice in this former capital of the Creek, or Muscogee, Nation. With the impatience generated by long frustration, he began looking for a likely building, no matter how humble, that might be used for a hospital. Likely or not, he found a one-story, four-room, brick cottage with a screened-in porch across the front, for rent at 515 South Muskogee. With the approval and support of the few doctors already in Ok-

mulgee, he equipped it with four beds and an operating room.

Although there was not much to direct, he was determined that this first step toward a modern hospital must be a civic project, and so the initial Board of Directors of Okmulgee's first hospital included Mrs. E. H. Moore, wife of the future United States Senator, and Fred Storm, pioneer public-minded citizen. A great deal of surgery was performed in the house among the trees, near the creek that ambles through the south part of town. For the first time in his practice, Virgil was able to obtain trained nurses. Emma Kate was retired with honors.

More beds were soon crowded into the little hospital, but still it was not large enough, so a two-story building was rented in Capitol

Heights in the southwest part of town, but that building soon was sold by the owner. Then a large cottage in the 500 block on South Seminole near downtown was used. At last! Virgil had the hospital with the equipment of which he had dreamed so long. Extensive surgical work came to him from the surrounding area — Wewoka, even Holdenville, Mounds, Okemah, Morris, Henryetta, former patients from Wagoner, and of course his old friends and patients from Wetumka. He continued to attend the meetings of the state and other regional societies and published several papers.¹⁷

In order to keep himself posted on surgical advances, Virgil started attending some of the most reputable postgraduate clinics offered practicing physicians. During the next few years he attended the courses of Doctor Rudolph Matas, Tulane University, New Orleans; the Mayo Clinic; and the Lake Side Hospital Clinic, Cleveland, Ohio, where Doctor George Crile was chief surgeon. His principal interest in the lectures of Doctor Crile was the famous man's thyroid surgical techniques, for much thyroid work was coming to Virgil. Goiters were fairly common at that time in his area.

The years rushed by. In 1912, Virgil was elected a member of the Board of Freeholders that wrote the City Charter of Okmulgee. The town was booming. Oil exploration was begun. The town's doctors were overworked. He soon felt that he must have associates to share the burdens of his practice that grew along with Okmulgee and its newly discovered oil fields. The clinic concept of medicine was still in its infancy although clinics had spread throughout the eastern, northern, and midwestern cities. With increased knowledge and use of x-ray, it became a distinct advantage to have diagnostic and treatment tools under one roof. Virgil, Doctor W. C. Mitchener, a prominent pioneer physician from Mississippi and Okmulgee's first mayor, met with Doctor J. E. Bercaw, a young man far-sighted enough to have studied the medical techniques of x-ray. In 1916 these men together formed the Okmulgee Clinic in what had been a brick flat on the corner of Fifth Street and Okmulgee Avenue. Virgil was the surgeon, Doctor Mitchener, general practitioner in charge of internal medicine (who Virgil always said was the best diagnostician he ever knew), and Doctor Ber-

caw was in charge of radiology. Other doctors were added later.

Suddenly, news began coming over the telegraph wires of growing trouble in Europe and it soon seemed to Virgil that American involvement was inevitable in what might become a world conflict. His prophecy proved to be tragically accurate, and when America declared war against Germany, he could not be kept out of uniform. His decision to enlist in the army proved to be the most lamentable decision of his life. His colleagues urged him not to leave his practice. Emma Kate was almost frantic in her opposition. After all, he was now fifty-one years old. But his mind could not be changed. Ironically, very shortly before his orders arrived to report for training at Ft Riley, Kansas, he was elected a Fellow of the American College of Surgeons. Dated the 26th day of October, 1917, his certificate was signed by Doctors G. W. Crile, Franklin H. Martin, John G. Bowman, and A. J. Ochsner, all medical giants of their day.

After routine military training at Ft Riley, Virgil was assigned to the Base Hospital at Camp Beauregard, Alexandria, Louisiana. He was commissioned Captain in the Medical Service of the Army, November 5th, 1917. His ward was 13-A. He and the beginning of the devastating Spanish influenza epidemic arrived almost at the same time. At first there were only a few cases. Virgil had time to settle in and write long letters home. Emma Kate would gather the children together and read aloud what to them were the exciting adventures of their father. War sounded like fun! His sightseeing trips to the picturesque Louisiana countryside, and his visits to New Orleans, made the stay-at-homes quite envious.

Then suddenly there were no letters and only one postal card. It stated simply, "Flu epidemic here terrible. No time to write. Love, V.B." It was many weeks before further news. Emma Kate was sure he must have been taken down with the disease. Still, she felt that she would have been notified if it were true. It was not until he was sent home on leave, that the family heard the real story of the unbelievably tragic circumstances of the epidemic. Virgil's shocking appearance gave added credence to his story, for he was pale and thin to emaciation, his hands shaking at times as he talked, his eyes seeing in retrospect what he could not put into words. He tried to tell them what he had experienced. As the epidemic spiraled to

its climax, he said, doctors, nurses, and orderlies fell victim to the disease faster than they could be replaced. Some never returned. Strapping young men would be there when Virgil made his rounds in the morning only to be gone by evening. Bodies were packed in sawdust, charcoal and ice. During one stretch of forty-eight hours, Virgil did not have his clothes off. Often after falling in exhaustion to sleep for a few hours, he would arise and help remove the dead to make room for the desperately ill. Strangely, Virgil never did contract the disease in its acute form. The epidemic ended abruptly leaving behind hundreds of dead at Camp Beauregard alone.

Not really rested, Virgil returned to camp where the news was spreading that his Company would be shipped overseas, but the excitement had gone out of the war for him. Fortunately, the war itself ended before his Company embarked. Captain Virgil Berry was honorably discharged December 5, 1918, from service to his country, a proud, perhaps, but weakened man.

Very gradually Virgil's strength returned. But the work load back at the Clinic increased and he became very nervous under the stresses common to the healing profession. Emma Kate thought that he had not given himself enough time to recuperate from his wartime ordeal. He rejected her advice to take a long vacation. Instead, with forced energy he continued to push himself, and again, his hands began to shake. For several years the Okmulgee doctors and city fathers had raised funds for a new city hospital. Late in 1918 the Okmulgee City Hospital was opened at 921 N. Okmulgee Avenue. With these excellent facilities Virgil's operating schedule grew heavy. During 1919, he was sure that his days of surgery were drawing to a close. Being the conscientious surgeon that he was, he became fearful of making an irreversible mistake.

One of his colleagues at Camp Beauregard had been a surgeon named Doctor Thomas J. Lynch, whose medical skills had impressed him. On impulse he contacted Doctor Lynch, inquiring if he were interested in buying his surgical practice. As quickly as a long distance call could be put through the answer came back with an enthusiastic, "Yes!" For several months they worked together, until Doctor Lynch was quite familiar with the local practice.

Virgil lived to regret his early retirement,

for he came to realize that Emma Kate had been right, after all. She knew that there might have been more years of usefulness in those long supple fingers that began their career using a scalpel carried in a saddlebag, and ended their career with competence and sensitivity using the shiny sharp metal instruments lifted from a hospital sterilizer.

Rather than end Virgil's story on a note of regret, it is good to report that he spent much time the following years at a farm he bought in the Cherokee Hills, not far from where his Indian Territory years began — in the part of the country he loved best. He built a cabin where he went to fish, and to hunt with his camera. He commuted back and forth to Okmulgee and built a dark room in the basement of their home where he did some remarkable photographic work. He even invented a contraption that he used in enlarging his pictures.

In August of 1942, Virgil's companion of fifty-one years, the dear Emma Kate, died as a result of a stroke following surgery for a broken hip. For a time he retreated from the world into his memories. Then he began writing a column of reminiscences and commentary for the daily newspaper, *The Okmulgee Times*. It helped relieve the loneliness of the white-columned house, the fifth home he and Emma Kate had built since their marriage.

In May of 1952, in his eighty-sixth year, the kind people of Okmulgee's Toastmasters Club voted Virgil "Man of the Year in Okmulgee." Recognition was made of the resident who in their opinion had made the greatest contribution by the use of the written or spoken word during the year.

During January of 1954, Virgil called Margaret in Oklahoma City, and told her that he was not well and for her to come. "I have something to tell you," he said. On her arrival, she was shocked to find him very jaundiced, but rocking contentedly in his favorite rocker in the living room. As she sat near him in order for him to hear her (he had become quite deaf), he told her quietly that he had diagnosed his illness as cancer of the pancreas, and that he would live about two months.

His dying was probably the most patient thing that Virgil ever did. His wish to remain at home was granted. The dining room was converted into a bedroom and his own comfortable brass bed brought downstairs. A patient from his Wetumka days, Gertrude Chowins, who was now a widow, came willingly to live

in. Her children had been “brought into the world” by Virgil, and she laughed when she told how annoyed she used to be at his insistent demand for cleanliness. “Why, he’d make you scrub till your skin nearly came off.” Then she would add soberly, “But my babies lived while so many died in those days.”

On Thursday morning, March 11th, *The Okmulgee Times* carried bold headlines across the front page:

DEATH CLAIMS DR. VIRGIL BERRY
Illness Fatal to City’s Most Colorful Settler

He had died four days before his 88th birthday.
Monday, March 15th’s *Tulsa World* carried on its editorial page a short article titled:

THE PIONEER DOCTOR

Dr. Virgil Berry, of Okmulgee, who died recently was a member of a valiant fraternity — the pioneer doctors. Those were days of “chills n’ fever,” frequent accidents in a grim fight with nature, a great many births and treatments for gunshot wounds. These men . . . must have led pretty rugged lives; they had hard conditions and primitive equipment in home and office; they had to ride in all sorts of storms. Some of them, notably Dr. Berry, kept records . . . (which) . . . probably more than any other writings fittingly depicted the pioneer era.

Virgil would have liked that. □

ACKNOWLEDGMENTS

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Nursing Services

Public health nurses function as a member of the health team of the local county health departments. They assist in diagnosing, planning and treatment of communities, as well as giving family-centered direct services to individuals. They provide services to promote and maintain wellness and to prevent illness as well as services to the homebound who are under the care of a physician. They are involved in continuity of care either from the community to the hospital or nursing home or from the institution back to community services. Public health nurses are aware of community resources availability and those needed within a geographical area. They emphasize the strength of the individual, the family and the community in their teaching and planning for present and future needs. Clients are involved in planning for the care to meet their needs. Their aim is to develop in a person as much independence in caring for themselves and their



News From
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families as they can assume. The public health nurses then are available to provide services when they are necessary.

Case findings, teaching, counselling, giving of direct patient-care (treatments, injections, baths, etc.), health education of individuals, families and communities and referrals to appropriate medical care or community agencies are examples of what a public health nurse can provide. Refer to your local county health department public health nurse persons needing her services. She will provide care to them and keep you informed about your patient's status and the needs she finds. □

COMMUNICABLE DISEASES IN OKLAHOMA FOR OCTOBER, 1978

DISEASE	OCTOBER	OCTOBER	SEPTEMBER	Total To Date	
				1978	1977
Amebiasis	2	3	6	28	20
Brucellosis	1	—	1	5	3
Chickenpox	—	15	—	—	941
Encephalitis, Infectious	2	1	4	19	12
Gonorrhea (Use Form ODH-228)	1191	1214	1232	11444	10895
Hepatitis, A, B, Unspecified	65	95	75	588	652
Leptospirosis	—	—	—	—	—
Malaria	—	—	—	—	—
Meningococcal Infections	—	1	—	16	14
Meningitis, Aseptic	14	21	11	64	65
Mumps	—	38	—	—	524
Rabies in Animals	11	19	16	160	219
Rheumatic Fever	—	—	—	—	3
Rocky Mountain Spotted Fever	3	—	6	54	68
Rubella	1	2	1	13	33
Rubella, Congenital Syndrome	—	—	—	—	—
Rubeola	1	5	1	14	63
Salmonellosis	58	69	41	267	288
Shigellosis	48	14	47	292	62
Syphilis, Infectious (Use Form ODH-228)	10	7	11	96	72
Tetanus	—	—	—	3	1
Tuberculosis, New Active	20	23	24	279	258
Tularemia	1	1	1	5	12
Typhoid Fever	1	—	—	3	1
Whooping Cough	1	7	3	14	15

AMA Rejects NHI Plan

For the first time since 1970 the American Medical Association will not sponsor a comprehensive national health insurance plan before the United States Congress. The AMA House of Delegates voted overwhelmingly, 160-86, not to introduce NHI legislation and instead to have limited stand-by recommendations available in case they are needed to counter a more comprehensive bill.

For the last eight years the AMA House has taken a position contrary to that advocated by Oklahoma doctors. The AMA argument has been that although American medicine did not actually favor national health insurance, as a matter of strategy it was necessary for the AMA to sponsor a NHI bill. AMA leaders reasoned that this provided medicine a forum at the NHI debates plus it saved sympathetic congressmen from being forced to sponsor NHI proposals submitted by labor.

Oklahoma doctors have never agreed with this philosophy and have taken the position that it is wrong to submit and sponsor legislation which you do not actually endorse. Therefore, the action taken at the December 2-6 AMA Interim Meeting is regarded as a major victory for the more conservative elements of the AMA.

Debate before the AMA House was whether to accept the report of the Board of Trustees which called for the AMA to draft and submit legislation embodying the AMA's 17 principles for comprehensive health insurance or to approve a substitute resolution submitted by the Florida delegation. This resolution allowed the AMA less latitude and said that a NHI bill could be introduced only if necessary and limited to the following:

Requiring minimum standards of adequate benefits in health insurance policies with appropriate deductible and co-insurance.

A system of benefits from federal, state and local governments for those unable to provide for their own medical care.

National standardization through federal guidelines while the program is administered at the state level.

A nationwide program by the private insurance industry of America (and government if necessary for reinsurance) to make available catastrophic insurance coverage for those illnesses and individuals where the economic impact of a catastrophic illness could be tragic. All catastrophic coverage should have an appropriate deductible and co-insurance to make it economically feasible and to avoid abuse.

AMA delegate, Dr Joseph C. Von Thron, Cocoa Beach, Fla., delivered an eloquent speech in favor of the Florida measure. Dr Von Thron pointed out that while AMA leaders argued that a national health insurance bill was needed, in fact very few congressmen and senators voluntarily signed their names as sponsors of the bill. He also related portions of a conversation he had recently with labor leader I. W. Abel. Abel, who knew the details of the Board of Trustees report before the AMA delegates, indicated that the only difference between the AMA proposal and that sponsored by Senator Kennedy was the percentage of employee-paid premium on the insurance coverage.

"It's gotten to the point that labor is introducing the same bill that the AMA introduces. Or perhaps it's that the AMA is introducing the same bill that labor introduces," said Dr Von Thron.

The action taken by the house allows the AMA enough flexibility to introduce NHI legislation in an emergency situation. But for the first time since 1970 a bill will not be introduced as a matter of routine.

Editor's Note: In the past the AMA has introduced NHI legislation which embodies the 17 principles adopted by the AMA House of Delegates. Many physicians have not been told what these principles are. These principles are listed below for your information:

(1) Minimum federal involvement in administration of NHI; (2) State jurisdiction with respect to licensure and certification of professional health personnel and regulation of insurance; (3) Minimum federal dollars in financing of comprehensive coverage at least possible cost; (4) Funding through federal, state and private funds including (a) employer-employee contributions for private health insurance, and (b) an individual tax credit as applied for full health care protection; (5) No added Social Security tax for financing; (6) No administration by Social Security; (7) Cost

sharing by participating individuals and families, and a subsidy for the indigent, scaled according to income; (8) Use of private insurance on risk and underwriting basis; (9) Comprehensive coverage, basic and catastrophic, for the entire population; (10) Pluralism in methods of health care delivery; (11) Cost controls as appropriate; (12) Quality controls as appropriate; (13) Continuity of benefits; (14) Coordination of benefits; (15) A separation of medical and institutional components of financing, so that the separate costs are ascertainable; (16) There should be freedom of the patient to select the physician and/or system of his choice; (17) There should be freedom of a physician to deal directly with his patient with regard to billing and to follow the method of treatment consistent with his medical judgment. □

OSMA Endorses Direct Billing

The OSMA Board of Trustees have approved the concept of direct billing for physicians services in order to promote the basic principles of the Medical Ethics of the AMA.

Recent proposed federal regulations would narrow reimbursement options for hospital-associated physicians, certain internists and others. Should these proposals be adopted, a significant proportion of the physician community would be left only two mechanisms for compensation: salary or the direct billing of patients and their carriers for the professional services rendered.

While physician compensation by salary is not uncommon in academic educational settings, the trustees decided that the use of this mechanism in other settings could impair the exercise of medical judgment or skill and impede the delivery of quality medical care.

The Principles of Medical Ethics of the AMA state, in part: "A physician should not dispose of his services under terms or conditions which tend to interfere with, or impair, the free and complete exercise of his medical judgment and skill or tend to cause a deterioration of the quality of medical care."

Implicit in this principle is a requirement of freedom for the individual physician to contract for his services. □

Physician Discipline Increase Six-Fold

In the past six years there has been a six-fold increase in state disciplinary actions against physicians, according to a survey conducted by the American Medical Association.

Much of this increase can be attributed to the steadily rising number of states providing immunity from civil liability for persons reporting errant physicians to state medical and osteopathic disciplinary agencies.

The AMA study covered the years 1971 through 1977 and 55 of the 60 state medical disciplinary boards. It shows that in 1971, there were 119 actions which revoked licenses, suspended narcotic permits, censured a physician or denied license reciprocity from one state to another. In 1977, there were 685 such actions.

Total actions initiated against physicians rose from 1,275 in 1971 to 3,662 in 1977.

All of these actions were taken by state disciplinary boards. Organized medicine, the AMA, state or local medical societies, do not have the power to revoke or otherwise affect the license of a physician.

There are 14 states which have enacted legislation making it mandatory that physicians report evidence of professional malpractice to the state's medical disciplinary board.

At the present time, Oklahoma has not enacted legislation making it mandatory that physicians report evidence of professional malpractice to the state's medical disciplinary board. The State Medical Board of Examiners will consider changes in the Medical Practice Act which will be dealt with in the 1979 legislature.

Immunity from civil lawsuits is granted to physicians, as well as others, reporting, in good faith, medical practice infractions. □

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Cheyenne's Only Doctor Mingles Medicine, Politics and Society

By Melinda Turner
Publications Specialist

Editor's Note: This is the first in a series of feature articles on the lives and practices of Oklahoma doctors. Features on doctors in every practice will be highlighted in the Journal.

Each morning a roomful of patients awaits the only doctor in Roger Mills County . . . Dr Frank Buster. He greets each with enthusiasm and concern.

For 27 years he has listened to the physical aches, spiritual and financial worries of the 4,000 residents of the western county.

He finds his role as the only physician "challenging, exasperating, fulfilling and confining."

Vacation is a word without a definition in Dr Buster's vocabulary as it is to many rural doctors. There is no solution, he says, except to lock the office door and leave the county without a physician.

Attendance at OSMA meetings and sessions of the Academy of Family Physicians requires him to transfer patients to neighboring county doctors.

Dr Buster meets the county residents' needs in several capacities other than as their physician. He, like many of his colleagues, is a community and church leader. He has served on the Methodist Church board, Sunday School roster, community committees and as president of the Chamber of Commerce in Cheyenne, the county seat.

He was honored for 25 years of service to Roger Mills County when Governor David Boren declared June 22, 1976 as Dr Frank Buster Day in Oklahoma.

Dr Buster is well-acquainted with both the people of Cheyenne and their problems.

"I know them all and they know me. I don't think the folks are afraid to come to the doctor with their problems. They have seen me around too long.

"However, that may be changing. People are coming in for the petroleum in the Anadarko Basin. This is the first time in 27 years we have some new faces in town. It is refreshing, but strange. I was raised in a metropolitan area, but I have succumbed to the typical small town attitude that regards strangers as 'outsiders,'" Dr Buster said.

Reared in Dallas, Texas, Dr Buster was

graduated from Southwestern Medical School in 1949 and practiced a year in Erick before settling in Cheyenne to take over Dr V. R. Paine's practice.

"I have often wondered why I came to Cheyenne," he said, "I took over Dr Paine's practice when he decided to go back to school for a specialization in urology. I found my niche here. I like the people and the area."

His desire to become a doctor stemmed from his father's wish.

"I studied medicine because father told me to. I found that I enjoyed it and even more, I enjoyed practicing. I was more obedient than my older brother who became a furniture salesman after one year of law school," Dr Buster said.

Medicine appealed to his sense of change and his longing as a youth to circumvent dogmatism.

"In medicine you can't be dogmatic; you have to change attitudes. Just look at obstetrics . . . we used to never do cesareans and now surgery is safer and cesareans have doubled," he said.

Dr Buster is proud of the neo-natal statistics of the Roger Mills County Hospital that show mothers do not have more problems in rural hospitals.

"Our statistics show that we have a great deal of success. I feel free to helicopter a mother to a neighboring county hospital if problems occur beyond our capacity. I think women are less afraid of pregnancy and better informed. So that adds to the better conditions for birth in these times," he said.

Medicine keeps changing and Dr Buster like other OSMA members stays up with the trends through continuing education programs. He says that continuing education is necessary for a doctor and he complies with the 150 hours required by the OSMA.

He also expressed interest



Frank Buster, MD

in the physician extender program, "I could use some help in this county, but I think the idea would take some getting used to."

He will be receiving help soon, though, of another kind. Dr David Oxford, a native of Tulsa, is doing a surgical residency at the University of Missouri and has indicated a desire to join Dr Buster in July.

"We are really excited about him. He is young and wants to settle here," he said.

Although he is pleased with the national program for scholarships that will bring Dr Oxford to Cheyenne, Dr Buster is hesitant to comment on the Oklahoma rural programs.

"I think the rural health program is a good idea if it doesn't get lost in the bureaucratic mumbo jumbo," he said.

His wife, a Registered Nurse, assisted him for ten years before illness forced her to retire. Dr Buster says she no longer tells him if the demands on his time bother her.

To relieve the tension of his position Dr Buster cooks and swims rather than taking advantage of the local hunting and fishing.

"Here I am in the middle of good hunting and fishing grounds and I can't stand either," he said.

Several years ago the doctor suffered a ruptured cerebral aneurysm and nearly died. Today he is completely recovered.

"I found that life went on without me. I was not essential and I learned to take life less seriously," he said.

Dr Buster again greets a roomful of patients each morning. His warm laughter still bubbles without restraint. □

Preventive Medicine Forges Ahead In 1978: Review of Highlights

A new emphasis on preventive medicine and a growing interest in environmental medicine were among the highlights of the 1978 medical events.

In 1978 came the test tube baby, the still unsubstantiated claim of a baby born by cloning, and further bits and pieces of new data in cancer, diabetes and other common ills.

Obesity, its health hazards, and what to do to lose weight continued to demand a great deal of time in the health care sector.

In the socioeconomic areas of medicine, concern over rising costs of care continued to dominate discussion and debate. The Voluntary Effort to contain cost escalation in hospitals by the American Medical Association, the

American Hospital Association and the Federation of American Hospitals was beginning to take effect. The rate of increase dropped substantially.

Late in the year both President Carter and Senator Kennedy presented national health insurance plans. The president proposed the gradual phasing in of a plan built largely on the present private system. Kennedy proposed a sweeping program of government regulation of health care.

Attempts to bring more minority students into medical schools received a temporary setback when the Supreme Court ruled in the Bakke case that schools could not set quotas for minority enrollees.

Some other highlights on the medical front in 1978 were:

- The Battle of the Bulge continued. Combating fatness has become a \$10 billion a year business. Thirty million Americans are overweight. Nothing much new was offered on how to control obesity during the year.

- Laetrile, the unproven cancer treatment, refused to go away, despite almost universal scientific disapproval. The federal government was preparing at year's end to conduct a scientific study of the merits of laetrile.

- Heart disease continued as the number one killer of adult Americans. Common sense in vigorous physical exertion by sedentary Americans was urged in helping men avoid heart attacks.

- Much progress has been made in increasing the number of family physicians in the past 11 years, an AMA study found. Residency training programs for family practice grew to 325, with more than 5,000 potential family doctors enrolled.

- Marijuana and other drugs of abuse, including alcohol, continued to occupy much time and attention in the health care picture. A California researcher said that some components of marijuana may have medicinal uses, but not in raw form.

- Smallpox was entirely gone from the world. And then came a case in England, a laboratory worker infected by supplies kept in the laboratory for study purposes.

- Tiny premature infants, those less than 2.8 pounds at birth after only seven months' gestation, had a much better chance of surviving in 1978 than 1963. Costs, however, are large. An 89-day stay in an intensive care nursery costs

(Continued on Page 28)

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Yesterday's folk remedies from the Southwest



(Continued from Page 26)

\$40,000 for each surviving infant.

- Nobel prizes in medicine were awarded in 1978 to two American scientists and a Swiss scientist for their work on certain types of enzymes. Recipients were Werner Arber of Switzerland and Hamilton O. Smith and Daniel Nathans of Baltimore.

- Sexual abuse of children surfaced on many fronts in 1978 as medicine and society as a whole confronted this widespread problem more than ever before. A Seattle survey discovered that more than half the primary care doctors said they had seen instances of child sexual abuse. Most of the cases probably go unreported, St Louis researchers declared.

- A national group of surgeons found that too many accident victims are dying after they reach the hospital, because they are taken to the wrong hospital. Not all hospitals are equipped and staffed to handle major emergencies, and each community should develop a plan of routing ambulances to the proper medi-

cal centers, the surgeons said.

- Physicians still adhere to the principle of caring for all patients, regardless of ability to pay, an AMA poll indicated. Most doctors say they continue to reduce their fees or provide free care to patients who can't pay. When the need arises, physicians regard it as their ethical professional responsibility to provide service.

- Small rural hospitals can do a first rate job of delivering babies safely, and at less cost than the big city hospitals, an Iowa survey found. Federal health planners recently declared that hospitals delivering less than 500 infants a year could not have the quality and efficiency of a big hospital, and probably should not be allowed to handle deliveries. The opposite is true, the Iowans found.

- The coronary bypass operation continued to be popular with patients and doctors. Dialogue continued as to whether it actually prolonged life, or provided a better quality of life. But there was no doubt that it is expensive

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[†]See Contraindications, Precautions, Warnings, and Adverse Reactions.

See prescribing information on the following page.

— an average of \$10,930 in one hospital in Tennessee, and more than \$12,000 in another study.

- Hypnosis, like biofeedback, gained new popularity in the United States during the year as a means of helping some people learn to deal with their health problems. It can be an aid to patients suffering pain from chronic ills, such as arthritis. It can help smokers quit, and over-eaters eat less. It is not a complete treatment, but an adjunct to therapy.

- Two aspirin tablets twice daily might help prevent strokes in susceptible (male) individuals, a Houston study reported. A similar study is under way in Canada.

- The scientific world had virtually given up hope of receiving proof by the end of the year that the claim of cloning of a man would be validated. The claim was made in a book published during the year. It was discounted in scientific circles. The author said he was pledged to confidentiality and could not name names.

- Severe birth defects in infants born to nurses were traced to washing of hands with hexachlorophene soap 10 to 70 times daily during pregnancy. The report came from Sweden.

- Vaccine manufacturers were dropping out one by one in 1978, leaving only a few producers, whose supplies might not meet needs in an epidemic. Litigation, government regulations, and uncertain markets are cited as reasons for companies leaving this scientifically exacting field.

- Dialogue continued about whether generic name drugs are the exact equal of trade name drugs. In some circles it has been held that money could be saved by generic prescribing. A research group at the Medical College of Virginia tested two different brands of tetracycline. They had been certified as identical. But one brand was inferior to the other in raising blood and urine levels of the potent antibiotic in test volunteers. Conclusion: generic drugs aren't necessarily the same, and no one can declare positively that they are. □

Cantil[®]

(mepenzolate bromide NF)

Tablets and Liquid
AVAILABLE ONLY ON PRESCRIPTION

Brief Summary

INDICATIONS: Based on a review of this drug by the National Academy of Sciences-National Research Council and/or other information, FDA has classified the indications as follows:

"Effective": Cantil is indicated for use as adjunctive therapy in the treatment of peptic ulcer.

"Probably" effective: Cantil is indicated for use as adjunctive therapy in the irritable bowel syndrome (irritable colon, spastic colon, mucous colitis, acute enterocolitis and functional gastrointestinal disorders) and in neurogenic bowel disturbances (including the splenic flexure syndrome and neurogenic colon).

"Possibly" effective: Cantil is indicated as an adjunct in the treatment of diverticulitis and mild ulcerative colitis. Cantil is also indicated as an adjunct in the treatment of diarrheas, i.e., loose stools, functional diarrheas, post-gastrectomy diarrheas (post-gastrectomy syndrome, dumping syndrome), drug induced diarrheas, acute enteritis, intestinal viral infection, colitis, ileocolitis and diarrheas with ileostomies and ileoanal anastomoses.

To be effective the dosage of Cantil must be titrated to the individual patient's needs.

Final classification of the less-than-effective indications requires further investigation.

IT SHOULD BE NOTED AT THIS POINT IN TIME THAT THERE IS A LACK OF CONCURRENT AS TO THE VALUE OF ANTICHOLINERGICS IN THE TREATMENT OF GASTRIC ULCER.

IT HAS NOT BEEN SHOWN CONCLUSIVELY WHETHER ANTICHOLINERGIC DRUGS AID IN THE HEALING OF A PEPTIC ULCER, DECREASE THE RATE OF RECURRENCES OR PREVENT COMPLICATION.

THESE FUNCTIONAL GASTROINTESTINAL DISORDERS ARE OFTEN RELIEVED BY VARYING COMBINATIONS OF SEDATIVE, REASSURANCE, PHYSICIAN INTEREST, AMELIORATION OF ENVIRONMENTAL FACTORS, ETC.

CONTRAINDICATIONS: 1. In glaucoma (particularly narrow-angle). 2. In obstructive uropathy (for example, bladder neck obstruction due to prostatic hypertrophy). 3. In obstructive disease of the gastrointestinal tract (as in achalasia, pyloroduodenal stenosis, etc.). 4. In paralytic ileus. 5. In intestinal atony of the elderly or debilitated patient. 6. In severe ulcerative colitis and toxic megacolon complicating ulcerative colitis. 7. In acute hemorrhage where the cardiovascular status is unstable. 8. In myasthenia gravis.

WARNINGS: 1. An early symptom of incomplete intestinal obstruction, especially in patients with ileostomy or colostomy, may be diarrhea. Treatment with mepenzolate bromide in this instance would be inappropriate and possibly harmful. 2. Heat prostration (fever and heat stroke due to decreased sweating) may occur with use of this drug in the presence of high environmental temperature. 3. The patient should be warned not to engage in activities requiring mental alertness such as operating machinery or driving a motor vehicle if drowsiness or blurred vision occurs. 4. Since the safety of this drug in pregnancy has not been established, use of this drug in such patients requires that the potential benefits of the drug be weighed against possible hazards to the mother and child.

PRECAUTIONS: Cantil should be used with caution in patients in which the anticholinergic effects might produce adverse effects, such as in open-angle glaucoma (contraindicated in narrow-angle), autonomic neuropathy, non-obstructing prostatic hypertrophy and hiatal hernia associated with reflux esophagitis. In the treatment of gastric ulcer the use of anticholinergic drugs may produce a delay in gastric emptying time and may complicate such therapy (antral stasis). In ulcerative colitis large doses may suppress intestinal motility to the point of producing a paralytic ileus and the use of this drug may precipitate or aggravate the serious complication of toxic megacolon. Use with caution in patients with hepatic or renal disease. Do not rely on the use of this drug in the presence of complications of biliary tract disease. Investigate any tachycardia before giving anticholinergic (atropine-like) drugs since they may increase the heart rate. Use with caution in patients with hyperthyroidism, coronary heart disease, congestive heart failure, cardiac arrhythmias and hypertension. With overdosage, a curare-like action may occur.

ADVERSE REACTIONS: Anticholinergic drugs produce certain effects which may be physiologic or toxic depending upon the individual patient's response. The physician must delineate these. Adverse reactions may include dryness of the mouth; urinary hesitancy and retention; blurred vision and tachycardia; palpitations; mydriasis; dilation of the pupil; cycloplegia; increased ocular tension; loss of taste; headaches; nervousness; drowsiness; weakness; dizziness; insomnia; nausea; vomiting; impotency; suppression of lactation; constipation; bloated feeling, severe allergic reaction or drug idiosyncrasies, including anaphylaxis, urticaria and other dermal manifestations; some degree of mental confusion and/or excitement especially in elderly persons. Decreased sweating is another adverse reaction that may occur. It should be noted that adrenergic innervation of the eccrine sweat glands on the palms and soles make complete control of sweating impossible. An end point of complete anhidrosis cannot occur because large doses of drug would be required and this would produce severe side effects of parasympathetic paralysis.

DOSAGE AND ADMINISTRATION: Cantil Tablets: Usual Adult Dose: One or 2 tablets three times a day preferably with meals and 1 or 2 tablets at bedtime. Begin with the lower dosage when possible and adjust subsequently according to the patient's response.

Cantil Liquid: Usual Adult Dose: One or 2 teaspoonfuls three times a day preferably with meals and 1 or 2 teaspoonfuls at bedtime. As with the tablets, begin with the lower dosage when possible and adjust subsequently according to the patient's response.

DRUG INTERACTIONS: Concomitant administration of anticholinergic drugs and any other drugs which would increase the anticholinergic effects of Cantil is to be avoided.

MANAGEMENT OF OVERDOSAGE: With overdosage a curare-like action may occur. Symptomatic treatment of overdosage is directed to the anticholinergic effects of the drug. Severe intoxication with oral overdosage of Cantil is unlikely, since, being a quaternary anticholinergic, passage across the blood brain barrier is not known to occur. If severe symptoms do occur, gastric lavage should be instituted promptly. Physostigmine or other reversible anticholinesterases may be necessary. Symptomatic treatment should also be instituted.

(Revised January, 1975)

Merrell

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DEATHS

W. O. ARMSTRONG, MD
1896-1978

Pioneer, Ponca City physician, W. O. Armstrong, MD, died October 29, 1978. Dr Armstrong, 82, was born in Burleson, Texas, and received his medical degree from the University of Oklahoma College of Medicine in 1924. Following his residency training, he organized and developed an industrial medical program for a company in Ponca City. He remained in industrial medicine until 1961 when he established his private practice. Dr Armstrong was a Fellow in the Industrial Medical Association, and a member of the American Academy of Occupational Medicine and the American Industrial Hygiene Association.

PAUL V. ANNADOWN, MD
1883-1978

Retired, Sulphur physician, Paul V. Annadown, MD, 95, died on October 22, 1978. A native of Sterling, Kansas, Dr Annadown received his medical degree from the University of Kansas School of Medicine in 1914. His medical career spanned approximately 50 years in both Kansas and Oklahoma before his retirement. Dr Annadown was a Life Member of the Oklahoma State Medical Association.

ROGER Q. ATCHLEY, MD
1890-1978

Retired, Tulsa physician, Roger Q. Atchley, MD, died November 25, 1978. Born in Lebanon, Missouri, Dr Atchley was graduated from Eclectic Medical College in Ohio, in 1917. He practiced medicine for fifty years before retiring in 1970. Dr Atchley was a Life Member of the Oklahoma State Medical Association. □

ERRATUM

On page 487 of the December, 1978 issue of *The Journal*, dates for the Oklahoma State Medical Association Annual Meeting were listed as May 3-5, 1978. This should have read May 3-5, 1979. □

OKLAHOMA STATE MEDICAL ASSOCIATION

What's RIGHT With American Medicine

By Harry Schwartz

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Today, when we hear about the American medical system, the bulk of public discussion is almost always about its deficiencies — real or, often, imagined. Spearheading the campaign against American medicine, with President Carter's approval, is Secretary of Health, Education and Welfare, Joseph Califano.

Yet despite the epidemic of criticism, the truth is that more and better medical care is available for the sick in the United States than anywhere else in the world. Indeed, by the most basic measures — life and death — Americans are healthier than ever before. Consider:

The US death rate in the last two years has been the lowest on record — when adjusted for our aging population, roughly 40 percent below that of 1970.

An American baby born in 1976 could expect to live 72.8 years, a record high and a gain of nearly ten years since 1940.

Last year was the 16th year in a row that infant mortality in the United States hit a record low. Of every 1000 babies born alive, fewer than 15 died. Put another way, more than 30,000 babies lived who would have died in 1965.

With statistics like these, why, then, all the criticism of American medicine? The basic indictment is that our nation's health-care system is, in the words of Secretary Califano, "a vast, sprawling, complex, highly expensive and virtually noncompetitive industry." The critics also claim that "our health resources are not well distributed" and that they emphasize "treatment of illness rather than prevention."

Complex and Competitive. What truth is there to these charges? For one thing, our health-care system is "vast, sprawling, complex" and thank God it is. We are, after all, talking about the health system for a large, geographically diverse nation of more than 215 million people.

We are also talking about something that is asked daily to cope with every imaginable ailment, from the simplest cold to the most advanced cancer, from alcoholism to pathological depression. Any system that tries to do so

much for so many people has to be vast, sprawling and complex.

Is the health-care system noncompetitive? Not that I notice. As I sit here in the suburbs of New York City, I can think of more than a dozen excellent hospitals within less than an hour's drive, every one of which would normally be delighted to have me as a patient should I need its help.

Within that same radius, there are literally thousands of physicians. The critics are simply wrong. The competition in medicine is actually severe. What the critics fail to comprehend is that medical competition relies on competence, reputation and convenience rather than on gaudy ads.

All too often, critics want to "organize" American medicine by sharply restricting our choices when we become patients, and — ironically — reducing the competition. Sen. Edward Kennedy (D., Mass.), for example, is a great proponent of the so-called Health Maintenance Organizations, or HMOs (generally prepaid group practices).

A patient who belongs to one of these HMOs finds that his choice is restricted to the usually very limited number of doctors working for that particular group.

HEW officials assail what they call the maldistribution of medical resources in America, pointing to our rural areas and inner cities. No free society which gives individuals, including doctors, the right to choose where they will live and work ever has the ideal distribution envisaged by some bureaucrat. But the problems that inevitably exist should not be exaggerated.

To be sure there are rural areas and towns that don't have a doctor close to every potential patient. But in this age of the automobile, that's very far from saying there's no medical aid available.

Of course problems exist in rural areas, but a good deal of private ingenuity and effort, both federal and private, are now helping to solve them. As for the inner cities, many of the nation's great medical centers — Johns Hopkins in Baltimore and Columbia-Presbyterian in Manhattan, to name but two — are located right smack in them and are increasingly aiding the poor and disadvantaged.

Critics lament that the medical system emphasizes curing sick people rather than preventing illness. True, but irrelevant. In effect, the critics would like doctors and hospitals to

stop our cigarette smoking, get us to take off 10 or 20 or 30 pounds, have us jog a mile or two every morning and persuade us not to drink too much.

The fact is that doctors and everybody else — particularly the media — have been telling Americans this for years. The trouble is, most of us simply don't care enough.

The Cost Explosion. But the nub of the critics' argument is the cost of medical care, which has been rising rapidly since 1965. Inflation has been a major factor in helping increase hospital prices and physicians' fees this past decade.

But to the extent that the medical-cost explosion is greater than the general inflation, the US government and its policies — and not the medical establishment — are largely responsible.

In 1965, Congress passed laws providing for what we now call Medicare and Medicaid. Medicare provides nearly "free" — that is, mostly taxpayer paid — medical care for the poor.

President Lyndon Johnson and the other politicians responsible for these laws basked in applause. Promises flowed freely: nothing but the best would be good enough for the new beneficiaries of government largess.

Obviously, this could be done only if the hospitals and physicians' offices got the latest and most expensive equipment. The result was a massive medical spending splurge, encouraged and spurred on by assurances that Washington was prepared to pay the bill for top-notch care.

In this rosy atmosphere, too, everybody who worked in hospitals woke up to the possibility that the new flood of government dollars might help get what the employees considered "economic justice" for themselves. The result was incessant pressure for higher wages — pressure the hospital administrators could not resist. Costs skyrocketed for all patients, not only those the government paid for.

Physicians, traditionally opposed to government intervention in medicine, also suddenly found the rules of the game changed by Medicare and Medicaid. Their tradition was a system in which the well-to-do paid full price, while the less well-to-do paid lower fees and the poorest were treated free of charge.

Now the government announced in effect that there were to be no more charity patients. Out went Robin Hood — medicine. (Doctors

fees were further pushed up by malpractice suits which sent insurance rates soaring.)

To summarize: By passing Medicare and Medicaid, Congress unloosed billions of dollars worth of additional demand for medical services each year. It was a classic case out of an Economics 1 textbook demonstrating just how prices rise.

Millions of patients promised "free" care had no incentive for economy, while hospital administrators and physicians remembered the exhortations to give the poor and the elderly first-class, "mainstream" care, instructions they interpreted as meaning the best would be none too good. The awesomely expensive consequences are now visible to all.

Prescription to Failure. Ironically, having caused medical-cost inflation, government now wants to solve the resulting problems by intruding still further into the nation's medical care.

The chosen instrument is national health insurance, with its alluring promise of all the medical care you want, more or less free of charge (unless you count \$15 billion to \$130 billion a year, depending on the plan adopted, in new taxes.)

The sad truth is, the demand for "free" medical care is inexhaustible. There are millions of patients who, if the government will pay for it, are willing to try another specialist every day, another experimental therapy every week.

I'm convinced that government national health insurance in America would quickly turn into the sort of strictly rationed health care that now exists with Britain's National Health Service.

Started in the late 1940s, the Service is often referred to approvingly by critics of this country's medical system. But in 1975, Dr David Owne, currently Britain's foreign secretary but then Labor Party minister in charge of socialized medicine, admitted there were problems.

"The Health Service," he declared, "was launched on a fallacy. First we were going to finance everything and cure the nation, then spending would drop. That fallacy has been exposed. Then there was the period when everybody thought the public could have whatever they needed on the health service, it was just a question of governmental will. Now we recognize that no country, even if they are prepared to pay the taxes, can supply everything."

The British government realized very early

that it had unleashed an insatiable monster by promising everyone "free" medical care. There were not the resources to meet the demand, nor could there be.

Because of postwar recovery and high costs, only 80 new hospitals have been built in Britain since 1945 (out of the country's total of 2750 hospitals). Meanwhile, the number of surgeons and medical specialists trained and permitted to practice was severely kept down.

The result is a medical system in which at any one time more than half a million people are waiting to get into a hospital for an operation, while uncounted numbers are waiting weeks, months, sometimes even years for a consultation.

I don't think Americans would be happy with this kind of medical system. And those politicians who dream of replicating it in this country are really taking enormous risks of a national explosion of anger and bitterness, especially after all the promises about the wonders and beauties of "free" medical care in national health insurance.

Last year, Secretary Califano declared, "The government must play an increasing role in health care." That prescription reminds me of the drunk who wakes up with a terrible hangover after a night of revelry and then takes a big drink to quiet his pains. The drunk needs to drink less, and America needs less government intervention in medicine. □

OSMA Peer Review Regulates Policies

Policies concerning drop-in OB patients, microscope use and the two-surgeon rule were set by the OSMA Peer Review Committee at the November meeting.

The committee recommended that physicians should consider individual circumstances when charging drop-in OB patients. But considering the risk, the physician could charge the same as full-term patients.

The committee reaffirmed their position that no additional charge should be made when a microscope is not necessary to a procedure but is used at the preference of a surgeon.

They also recommended that when a case involved the two-surgeon rule of 125 per cent for a total fee; the division of payment is made by the doctors according to the responsibility and work done. The committee cannot be involved in the apportionment of the fee between the physicians. □

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Business Manager,
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McAlester, Oklahoma—918 426-0240.

Community, Business Restrain Health Costs

The Chamber of Commerce of the United States recently encouraged business firms and community groups to implement health care cost control plans.

The program is based on the recommended actions contained in a new study conducted for the National Chamber Foundation by InterStudy, a consulting firm in the health care field.

The InterStudy project provides a series of specific actions that business can pursue to improve health and contain growing health care costs.

Guidelines on how to organize for action are suggested in a companion handbook to the five reports, "Health/Action."

A special Health Action Task Force has been formed to help interested firms and communities implement cost control programs.

The task force consists of executives from such organizations as the American Hospital Association, American Medical Association, College of American Pathologists, Ford Motor Company, Greater Philadelphia Chamber of Commerce, Group Health Association of America, Lockheed Corporation, Maryland State Chamber of Commerce and the National Association of Life Underwriters.

The OSMA is working closely with the Oklahoma Hospital Association in the Voluntary Effort to bring down costs. The Oklahoma Utilization Review Systems reports success and is waiting for an official audit of the results. □

Miscellaneous Advertisements

UNIVERSITY OF OKLAHOMA PA graduate with five years primary care experience, currently in first year of medical school, seeking part-time employment in Oklahoma City, Moore, Norman area. Call 799-7252.

1,500 SQ. FT. of PRIME OFFICE SPACE, N.W. Oklahoma City. Pediatrician and OB-GYN in building. Ideal for dermatologist, OB-GYN or pediatrician. Call Mrs. Crane, 721-0520.

POSITION WANTED: General diagnostic radiologist. Oklahoma native, OU graduate trained in general diagnosis, CT scanning, angiography, nuclear medicine and ultrasound. Passed written boards in diagnosis and physics, eligible for orals in June, 1979. Will finish residency June 30, 1979, available July 1, 1979. Contact Key B, c/o *The Journal* of the Oklahoma State Medical Association, 601 N.W. Expressway, Oklahoma City, Oklahoma 73118. □

Remember these dates . . .

MAY 3 - 5, 1979

**OKLAHOMA STATE
MEDICAL ASSOCIATION
ANNUAL MEETING**

WILLIAMS PLAZA CENTER
3rd and BOSTON
TULSA, OKLAHOMA

Tenuate®
(diethylpropion hydrochloride NF)

Tenuate Dospan®
(diethylpropion hydrochloride NF) controlled-release

AVAILABLE ONLY ON PRESCRIPTION

Brief Summary

INDICATION: Tenuate and Tenuate Dospan are indicated in the management of exogenous obesity as a short-term adjunct (a few weeks) in a regimen of weight reduction based on caloric restriction. The limited usefulness of agents of this class should be measured against possible risk factors inherent in their use such as those described below.

CONTRAINDICATIONS: Advanced arteriosclerosis, hyperthyroidism, known hypersensitivity, or idiosyncrasy to the sympathomimetic amines, glaucoma. Agitated states. Patients with a history of drug abuse. During or within 14 days following the administration of monoamine oxidase inhibitors, (hypertensive crises may result).

WARNINGS: If tolerance develops, the recommended dose should not be exceeded in an attempt to increase the effect; rather, the drug should be discontinued. Tenuate may impair the ability of the patient to engage in potentially hazardous activities such as operating machinery or driving a motor vehicle; the patient should therefore be cautioned accordingly. **Drug Dependence:** Tenuate has some chemical and pharmacologic similarities to the amphetamines and other related stimulant drugs that have been extensively abused. There have been reports of subjects becoming psychologically dependent on diethylpropion. The possibility of abuse should be kept in mind when evaluating the desirability of including a drug as part of a weight reduction program. Abuse of amphetamines and related drugs may be associated with varying degrees of psychologic dependence and social dysfunction which, in the case of certain drugs, may be severe. There are reports of patients who have increased the dosage to many times that recommended. Abrupt cessation following prolonged high dosage administration results in extreme fatigue and mental depression; changes are also noted on the sleep EEG. Manifestations of chronic intoxication with anorectic drugs include severe dermatoses, marked insomnia, irritability, hyperactivity, and personality changes. The most severe manifestation of chronic intoxications is psychosis, often clinically indistinguishable from schizophrenia. **Use in Pregnancy:** Although rat and human reproductive studies have not indicated adverse effects, the use of Tenuate by women who are pregnant or may become pregnant requires that the potential benefits be weighed against the potential risks. **Use in Children:** Tenuate is not recommended for use in children under 12 years of age.

PRECAUTIONS: Caution is to be exercised in prescribing Tenuate for patients with hypertension or with symptomatic cardiovascular disease, including arrhythmias. Tenuate should not be administered to patients with severe hypertension. Insulin requirements in diabetes mellitus may be altered in association with the use of Tenuate and the concomitant dietary regimen. Tenuate may decrease the hypotensive effect of guanethidine. The least amount feasible should be prescribed or dispensed at one time in order to minimize the possibility of overdosage. Reports suggest that Tenuate may increase convulsions in some epileptics. Therefore, epileptics receiving Tenuate should be carefully monitored. Titration of dose or discontinuance of Tenuate may be necessary.

ADVERSE REACTIONS: **Cardiovascular:** Palpitation, tachycardia, elevation of blood pressure, precordial pain, arrhythmia. One published report described T-wave changes in the ECG of a healthy young male after ingestion of diethylpropion hydrochloride. **Central Nervous System:** Overstimulation, nervousness, restlessness, dizziness, jitteriness, insomnia, anxiety, euphoria, depression, dysphoria, tremor, dyskinesia, mydriasis, drowsiness, malaise, headache; rarely psychotic episodes at recommended doses. In a few epileptics an increase in convulsive episodes has been reported. **Gastrointestinal:** Dryness of the mouth, unpleasant taste, nausea, vomiting, abdominal discomfort, diarrhea, constipation, other gastrointestinal disturbances. **Allergic:** Urticaria, rash, ecchymosis, erythema. **Endocrine:** Impotence, changes in libido, gynecomastia, menstrual upset. **Hematopoietic System:** Bone marrow depression, agranulocytosis, leukopenia. **Miscellaneous:** A variety of miscellaneous adverse reactions has been reported by physicians. These include complaints such as dyspnea, hair loss, muscle pain, dysuria, increased sweating, and polyuria.

DOSAGE AND ADMINISTRATION: Tenuate (diethylpropion hydrochloride): One 25 mg. tablet three times daily, one hour before meals, and in mid-evening if desired to overcome night hunger. Tenuate Dospan (diethylpropion hydrochloride) controlled-release: One 75 mg. tablet daily, swallowed whole, in mid-morning. Tenuate is not recommended for use in children under 12 years of age.

OVERDOSAGE: Manifestations of acute overdosage include restlessness, tremor, hyperreflexia, rapid respiration, confusion, assaultiveness, hallucinations, panic states. Fatigue and depression usually follow the central stimulation. Cardiovascular effects include arrhythmias, hypertension or hypotension and circulatory collapse. Gastrointestinal symptoms include nausea, vomiting, diarrhea, and abdominal cramps. Overdose of pharmacologically similar compounds has resulted in fatal poisoning, usually terminating in convulsions and coma. Management of acute Tenuate intoxication is largely symptomatic and includes lavage and sedation with a barbiturate. Experience with hemodialysis or peritoneal dialysis is inadequate to permit recommendation in this regard. Intravenous phentolamine (Regitine®) has been suggested on pharmacologic grounds for possible acute, severe hypertension, if this complicates Tenuate overdosage.

Product Information as of April, 1976

MERRELL-NATIONAL LABORATORIES Inc.
Cayey, Puerto Rico 00633

Direct Medical Inquiries to:

MERRELL-NATIONAL LABORATORIES
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References: 1. Citations available on request — Medical Research Department, MERRELL RESEARCH CENTER, MERRELL-NATIONAL LABORATORIES, Cincinnati, Ohio 45215. 2. Hoekenga, M.T., O'Dillon, R.H., and Leyland, H.M.: A Comprehensive Review of Diethylpropion Hydrochloride. International Symposium on Central Mechanisms of Anorectic Drugs, Florence, Italy, Jan. 20-21, 1977.

Merrell

8-3921 (Y587A)

What House?

Every once in awhile I hear that we physicians ought to "clean up our own house." Usually this admonition is accompanied by a pointing or wagging finger and delivered with an inflection of voice which invites the inference of dire consequences if corrective action is not taken immediately. I hear this comment from friends, patients and colleagues and it has served as the subject of several editorials I have read in newspapers, magazines and medical journals during the past few years.

With such diverse sources of support I must assume a consensus prevails concerning the imperative that "organized medicine must clean its own house." So, with some concern and curiosity I began looking for the dirt in our house. I've had no trouble locating it, a fact which did not surprise me since organized medicine is comprised of human beings and the institutions in which they exercise their influence. All human beings are subject to corruption and, in large groups there are always some who are corrupt. In the exercise of their influence it is to be expected that their institutions are imperfect.

My trouble is the fact that I can't find our house. I've searched all the organizations and institutions of physicians and I swear I have been unable to locate a house we could call our own. It's not our medical schools because we don't determine who will be graduated from them. It's not our state licensing board because we don't control the licensing laws. It's not the State Board of Health because we don't appoint the members of that board. It's not the hospitals because they are governed by groups comprised largely of laymen. It's not even the AMA or its component societies because they must submit to the will and whims of countless dictatorial government agencies, each of which seems gluttoned with decrees and mandates.

I have concluded that, if we ever had a house, it's been stolen, razed or moved. I can't find a trace of it. I find lots of legislators, lawyers, judges, journalists, laymen and bureaucrats standing around telling us what we must do — and what we can't do—but I sure as hell can't find our house.

If you happen to locate it, please let me know. I'll be happy to help clean it up.—MRJ

This is to serve notice to all other orthopedic surgeons in the state that I will not be undersold.

Not only will I not be undersold, but I plan to advertise my wares (formerly services) and to solicit customers (formerly patients). I will do everything in my power to make medicine competitive. I will help our customers make decisions based upon Madison Avenue's "bait and switch" tactics . . . run a special on fractures but sell them a laminectomy. I may even stay open 24 hours a day until I have used up all the splints and crutches we thought were already sold.

That should make some FTC bureaucrat jump with glee.

Several years ago OSMA published brochures poking fun at the idea of running half price specials on tetanus vaccine or doing tonsillec-
tomies on the family plan . . . two for the price of one. But a recent ruling by the omnipotent, omnipresent Federal Trade Commission has brought the days of hucksterized medicine frighteningly close.

Can you imagine it? The FTC has determined in their infinite wisdom that physician advertis-



ing is in our patients' best interests. At the same time our friends in Washington decided that the AMA's position against patient solicitation and misrepresentation is a violation of federal guidelines, as are our long-standing Principles of Medical Ethics. Under the ruling we can no longer censor, discipline or expel doctors who engage in false, misleading or fraudulent advertising. The FTC will allow us to report them to a governmental agency, but at the same time the FTC has served notice that it will do nothing about local complaints. It appears to me to be double jeopardy . . . a situation in which doctors can only lose.

So before they make the practice of medicine illegal or unethical, I suggest we all put advertising agencies on retainers and get out there and drum up some business. It only makes sense that if advertising drives up the cost of pharmaceutical items, as the government says it does, it will drive down the cost of medical care. Typical Potomac reasoning!

I'm sure all this will make our friends in Washington ecstatic and no one seems to care what we doctors and our patients want anyway. □

Marvin K. Margo M.D.

Hypophysectomy in the Treatment of Pain from Metastatic Carcinoma

BOB J. RUTLEDGE, MD

Hypophysectomy transsphenoidally is safe using microtechnique. Measurement of prolactin and HGH, and the discovery of hypothalamic neuropeptides (endorphins) suggest a mechanism for the relief of pain.

Carcinoma of the female breast is generally regarded as the first type of malignant tumor to have shown sensitivity to hormones. The proposal that oophorectomy be used as a treatment for advanced carcinoma of the breast appeared as early as 1889 by Schinzinger. However Dr Thomas Beatson¹ was the first to publish a paper on oophorectomies in 1896. The title was "On the Treatment of Inoperable Cases of Carcinoma of the Mamma. Suggestions for a New Method of Treatment with Illustrated Cases." He was a surgeon of the Glasgow Cancer Hospital and performed

oophorectomies on two patients suffering from metastatic carcinoma of the breast. The idea for this procedure arose from observations made on lactating farm animals. There was regression of the tumors following oophorectomy. Although there was initial acceptance of the procedure, interest soon declined. This was because of the relatively short remissions and the fact that this challenged the theory that all malignancies were autonomous and couldn't be influenced by other factors such as hormones.

Interest in the hormonal response of tumors wasn't revived until 1941 when Huggins² reported his classic work on the effects of castration on advanced carcinoma of the prostate. This gave new impetus to research and the clinical indication for ablation therapy. Loeser³ and Ulrich⁴ in 1938 and 1939 published papers on the treatment of certain tumors with androgens. Huggins and Bergenstal published a paper in 1952 entitled "Inhibition of Human Mammary and Prostatic Cancer by Adrenalectomy." In 1952 Luft and Olivecrona⁵ from Stockholm published a paper "Hypophysectomy in Man." Their first hypophysectomy was done on June 26, 1951, and by October, 1952, Dr Olivecrona had performed hypophysectomy on twenty-six patients

including three with Cushing syndrome, seven cases of malignant hypertension, four of diabetes mellitus, and the remaining twelve were patients with malignant tumors including one case of carcinoma of the prostate gland and nine cases of carcinoma of the breast. The operation was tolerated in every case without serious complications of any kind. There were no deaths. The investigators stated at that time that their experience was too recent to know what the effects on regression of the tumor would be. They did note that pain was markedly decreased and that ulcerative lesions of the chest wall healed rapidly. There was no explanation for the relief of pain and we still are not sure of the factors affecting pain particularly when due to skeletal metastasis. Ray and Pearson⁶ of Cornell did important work on the effects of hypophysectomy via the transfrontal craniotomy approach in patients with metastatic carcinoma of the breast. Dr Ray did over 1,000 hypophysectomies from 1952 until 1974.

For many years it was accepted that only estrogen and progesterone were necessary for normal growth of the breasts. It is now realized that even the simplest form of breast development cannot occur without the influence of anterior pituitary hormones. Certain general conditions which affect the behavior of carcinoma of the breast have been recognized for a long time. The conditions that are deterrent to the development and growth of carcinoma of the breast are menopause, pregnancy occurring at an early age, and castration. Additives such as male and female hormones affect the behavior of the tumor in some patients. Guiot,⁷ a neurosurgeon in Paris, brought back the old transsphenoidal surgical approach to the pituitary gland in 1958. In 1971 Jules Hardy⁸ of Montreal reported on improved instrumentation and technique for total hypophysectomy striving to remove the gland in one piece. This technique was made possible not only by the use of the operating microscope with its excellent light source but by the radio-image intensifier, enabling you to see where you and your instruments are and by instruments specifically designed primarily by Dr Hardy for hypophysectomy. The fact that a craniotomy was a difficult, formidable procedure with difficulty in removing the entire pituitary gland resulted in adrenalectomies becoming the most

frequent ablative procedure other than oophorectomy. In 1971 estrogen receptors were suggested by Jensen⁹ and amino assay testing was perfected to determine whether breast tumors had estrogen receptors that would combine with estradiol. This procedure has enabled us to predict more accurately whether a patient will respond to ablative therapy. It is now believed that one can achieve a significant response in 60% of women who have positive estradiol receptors in their tumors. Since 1971 there has been a resurgence of hypophysectomy via the open ororhinotransseptal transsphenoidal approach by microtechnique in the treatment of metastatic carcinoma.

This procedure is safe with low morbidity and few complications. The patients have discomfort from the nose pack and sometimes slight discomfort from removal of the fascia lata. Skeletal pain is improved or relieved in 80% to 90% of those patients affected with skeletal metastases and generally relief is noticed in the recovery room. We believe that this specific relief of pain is related to the effect on human growth hormone and prolactin which reach insignificant serum levels at the conclusion of the surgical procedure.

The main disadvantage of hypophysectomy is the inability to remove the gland in one piece particularly in the operating surgeon's early cases. When removal *in toto* cannot be accomplished, absolute alcohol is placed in the sella turcica to destroy any remaining cells.

The preoperative evaluation of the patient includes skull x-rays, tomograms of the sella and sphenoid area, a bone scan, nasal culture, neosynephrine nasal spray, and hydrocortisone. Preoperative consultation with neighboring specialists is frequently obtained. These include an otolaryngologist who has been

Bob J. Rutledge, MD, was graduated from the University of Oklahoma School of Medicine and has been certified by the American Board of Neurological Surgery. He is professor of surgery at the school of his graduation. Dr Rutledge is a Fellow of the International College of Surgeons, the American College of Surgeons, a member of the Congress of Neurosurgeons, the Harvey Cushing Society, the Southern Neurosurgery Society and the Southwestern Surgical Society.

trained in microsurgical procedures, an oncologist and/or an endocrinologist. Cerebral spinal fluid is present in the sella, therefore to prevent rhinorrhea, meticulous closure is necessary, employing fascia lata, muscle and a piece of nasal septal cartilage to enforce the tamponade. Postoperatively the patients are alert and usually eat their evening meal the day of surgery. Postoperatively they are given hydrocortisone which is continued permanently after discharge from the hospital. The patient's main complaint is usually about his nose pack. Diabetes insipidus occurs to a mild degree in approximately 20% of the patients and is easily controlled. The patients are more easily managed than adrenalectomized patients because the aldosterone is not affected as in adrenalectomy and replacement therapy of mineral corticoids is not necessary. The normal pituitary gland is tough and relatively resistant to trauma. It can be damaged by other methods such as cryosurgery, cobalt irradiation, radio frequency exposure, the injection of absolute alcohol, and radioactive materials such as yttrium and chromic phosphate; however, the open procedure with total excision is, at the present time, the procedure of choice. With improved methods of measuring hormones, particularly prolactin and human growth hormone, and the recent understanding of the relationship between the hypothalamic hormonal centers and target glands, more clinical investigation will be necessary. It is hoped that with increased effort the specific mechanism for the relief of pain and factors determining tumor response will become more lucid. With the removal of ACTH and the gonadotropic hormones all estrogen and androgen producing organs should be suppressed as the production of prolactin and human growth hormone.

In premenopausal patients oophorectomy should be considered as the initial palliative procedure. The failure of the tumor to respond to oophorectomy does not necessarily contraindicate hypophysectomy and certainly failure of relief of pain by castration in the male does not contraindicate hypophysectomy for metastatic carcinoma of the prostate. Hypophysectomy should be considered relatively early in the course of metastatic disease because when it is used as a last resort useful remission and increased patient comfort cannot be expected. Hypophysectomy has been performed in the past in debilitated and poor-risk patients par-

ticularly in those suffering from carcinoma of the prostate. This has resulted in undue pessimism by physicians in considering hypophysectomy in metastatic disease.

It is now possible to assess the completeness of pituitary ablation and its effect on trophic and target organ hormone production by preoperative and postoperative endocrine studies. These studies include the serum levels of follicle stimulating and luteinizing hormones, testosterone and estradiol, and measurement of the somatotropin reserve and prolactin reserve following stimulation with chlorpromazine.

I have had experience with fifty-seven transsphenoidal procedures without any serious complications or operative mortality. Forty-one hypophysectomies were done in women suffering from metastatic carcinoma of the breast. All but four of the patients with pain had relief or marked improvement in the severity of their pain. A concomitant carcinoma of the lung, addiction, ascites, and pleural effusion were factors in the four patients who did not have significant modification of their pain.

Adenolysis is the injection of absolute alcohol into the pituitary gland by stereotaxic technique. Dr Guido Moricca¹⁰ has performed over 3,000 such procedures since 1963. Dr Guenter Corrsen,¹¹ Professor and Chairman of the Department of Anesthesiology at the University of Alabama, has reported recently on the results of adenolysis in twenty-four patients with metastatic carcinoma. Twenty-three of the twenty-four patients obtained improvement in the severity of their pain. Thirteen patients received complete relief of pain and ten were sufficiently improved so that their pain could be controlled with nonnarcotic analgesics. Two patients required two injections before obtaining complete relief of their pain. Corrsen states "for some obscure reason only cancer pain is affected."¹² Tindall¹³ reported his results in six patients with pain from metastatic carcinoma treated by open transsphenoidal hypophysectomy. Two patients received significant and lasting relief of pain. One patient received no benefit and the other three had modification of the pain for a short period of time. It is felt that the relief of pain in non-hormone dependent tumors might be on the basis of altering the activity of substances binding to opiate receptors, mainly enkephalins and endorphins.¹⁴ These are neuropeptides that have been isolated recently in the nervous system. Beta endorphin has now been

Hypophysectomy / RUTLEDGE

synthesized and is at least 15 times more potent than morphine. It is too early to state whether the alteration of these neuropeptides is going to be a major advance in the control of pain and particularly if adenolysis or hypophysectomy is going to prove to be an effective procedure.

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Transsphenoidal Hypophysectomy — Pituitary Microneurosurgery

STAN PELOFSKY, MD

Relatively new microsurgical techniques have been developed which have revolutionized the treatment of pituitary tumors. This article discusses the technique, its advantages, and disadvantages.

For more than forty years, neurosurgeons have used intraoperative magnification to help with difficult procedures. In the past, mainly magnifying spectacles or loupes were used. In the last ten years, the binocular surgical microscope has been brought into the neurosurgical operating room with increasing frequency. The surgical microscope, in fact, is revolutionizing neurosurgical procedures mainly because it allows for: (1) stereoscopic vision, (2) intense illumination, and (3) three to forty-fold magnification.

In 1971, Jules Hardy, MD, Notre Dame Hospital, Quebec, Canada, perfected and published his transsphenoidal approach to pituitary lesions using intraoperative image intensifica-

tion and the binocular surgical microscope. The transsphenoidal approach to pituitary lesions has had a long and fascinating history and was in fact used by Harvey Cushing. Between the years 1909 to 1928, prior to the advent of steroid and antibiotic drugs, Dr Cushing performed 242 transsphenoidal procedures mainly for pituitary tumors.

The transsphenoidal approach to lesions of the pituitary is relatively simple, straightforward, rapid, and convenient. It allows for symmetrical and excellent midline exposure of the sella turcica and its contents. The approach begins with a horizontal incision underneath the upper lip and continues in a midline fashion submucosally directly into the sphenoid sinus. (Fig 1) Following entrance into the sphenoid sinus, the sella floor is identified. Once this structure has been exposed, the binocular microscope is brought into the operative field and, under magnification and image intensification, the sella floor is gently removed and the dura covering the pituitary opened in cruciate fashion. This approach allows for removal of intrasellar tumors *ie* chromophobe adenomas and craniopharyngiomas, as well as for selective removal of small intrapituitary microadenomas which measure less than one centimeter in circumference. These microadenomas are often endoc-



Fig. 1.

Submucosal pathway via sphenoid sinus to the pituitary gland.

rinologically active and may be responsible for such varied syndromes as acromegaly, Cushing syndrome, galactorrhea with amenorrhea, and malignant exophthalmos. With selective removal of microadenomas, normal pituitary gland may be preserved and the need for life-long endocrine replacement therapy obviated.

There are many other advantages to the transphenoidal surgical approach to the pituitary. In cases of metastatic breast or prostate cancer the entire pituitary can be removed

Since his graduation from the University of Oklahoma College of Medicine in 1966, Stanley Pelofsky, MD, has been certified by the American Board of Neurological Surgery. In addition to his private practice, Dr Pelofsky is with the neurosurgical division of the University of Oklahoma Health Sciences Center. He is a member of the American Association of Neurologic Surgeons, the Congress of Neurologic Surgeons and the American College of Surgeons.

intact under direct visualization. The transsphenoidal approach also allows for direct pituitary stalk visualization thereby permitting low-stalk sectioning and limiting the occurrence of diabetes insipidus.

Another advantage of this approach is that it is extracranial. Craniotomy for pituitary lesions requires manipulation and retraction of intracranial structures which may lead to cerebral edema, intracerebral hematomas, and at times anatomical difficulty in performing intrasellar exploration. The transsphenoidal approach because it is extracranial avoids many of the complications which can occur with craniotomy.

A great advantage to transsphenoidal hypophysectomy is that patients tolerate the procedure well and often are able to be discharged from the hospital within the first five-to-six days postoperatively. The morbidity and mortality of this procedure is extremely low. The author has performed thirty-four transsphenoidal approaches from 1973 to 1977. There were no deaths and no cases of meningitis. One patient developed a cerebrospinal fluid leak requiring reoperation, and one patient with increased visual loss following surgery required craniotomy and removal of an overlooked nodule of tumor. Four patients developed diabetes insipidus requiring treatment. We have not had any recurrences of chromophobe adenoma to date but have had four patients with endocrine-active tumors who were not cured by what we felt was total surgical removal of microadenoma.

In summary, the operating microscope and the transsphenoidal surgical approach has added new treatment dimensions to disease states involving the pituitary gland. Microneurosurgery has come of age and is nowhere more obvious than in the microsurgical treatment of pituitary lesions.

1211 North Shartel, Suite 1000, Oklahoma City, Oklahoma 73103.

When to Suspect an Acoustic Neuroma and Newer Methods Available for Diagnosis

ROBERT J. KEIM, MD, FACS

Contrary to earlier teaching, neuromas occur often enough to be considered in the evaluation as perceptive hearing loss. New advances now make detection more certain and reduce risk.

A variety of mass lesions may be found in the area of the cerebello-pontine angle (CPA), however, acoustic schwannomas or neuromas comprise 80% of these lesions. The impression held by the medical profession as to the rarity of acoustic neuromas was sharply changed when Hardy and Crowe discovered a two per cent incidence of this tumor in routine autopsies.¹ Cushing reported an overall incidence of 8.7% for all cerebral tumors and this was later confirmed by Olivecrona.² Even now there is growing evidence to indicate that the only thing rare about acoustic neuromas is their identification.³

During recent years, refinements in diagnosis and management of these lesions have been significant. The purpose of this presentation is to summarize and place in perspective these many new contributions.

HISTORICAL REVIEW

The first recorded description of an acoustic neuroma is accredited to Sandifort's autopsy observation published in 1777.⁴ In the early 1800's there were other scattered reports of far-advanced acoustic neuromas discovered at autopsy. In 1900, von Monakow, localized and described an acoustic neuroma in a living patient.⁵ Substantiation was left to the post-mortem examination. He suggested that, from the appearance of the tumor, it could possibly have been removed surgically. It was during this period that patients with acoustic neuroma were more likely to be blind, deaf, and moribund before a correct diagnosis was made.

The delay encountered in reaching the correct diagnosis is readily understandable when one realizes that in 1900 very little was known about the testing of hearing and equilibrium. Early physicians did not interest themselves in whether a patient had a sensorineural or conductive hearing loss simply because there were no methods of correcting either problem

From the Department of Otorhinolaryngology, the University of Oklahoma Health Sciences Center, P.O. Box 26901, Oklahoma City, Oklahoma 73190.

until 1923 when Holmgren introduced the operating microscope for use in correcting hearing loss due to otosclerosis. Up to that time, the major interest in ear disease was focused on the control of middle ear and mastoid suppuration.

X-ray was not introduced by Roentgen until 1895. It was not until 1912 that Henschen⁶ suggested the use of x-ray plates to show the enlargement of the internal auditory canal caused by acoustic tumors. Contributions made by Chamberlain, Mayer, and Stenvers, in the 1920's, led to the development of accurate temporal bone roentgenograms.

Barany's basic work in vestibular testing was not reported until 1914.⁷ Inclusion of the vestibular test as part of the clinical examination of patients with hearing and balance disturbances is still not widely practiced.

With respect to the therapeutic aspects, it should be noted that there are few operative procedures in the history of medicine that have carried as high a mortality rate as the 85% reported for acoustic neuroma surgery done in the early 1900's.⁸

A unilateral suboccipital approach for removal of acoustic tumors was described in 1903 by Krause, a neurosurgeon from Berlin. One year later Panse, an otologist, decided the most direct route was through the labyrinth.⁹ He performed the first translabyrinthine removal of an acoustic tumor. Tumor size, visibility and instrumentation proved to be major limiting factors for him and influenced the high mortality rate.

In his famous monograph, Harvey Cushing reviewed his own series of acoustic neuromas removed by the suboccipital approach.¹⁰ This report is considered a milestone because for the first time it was recognized that tinnitus and

hearing loss were the presenting symptoms of this lesion.

In 1940, Dandy reported a 10% surgical mortality in his series. This significant reduction in mortality is attributed not only to Dandy's skill as a surgeon but also to his opportunity to operate on tumors identified earlier in their natural course as well as improvements in all aspects of surgery.

Following the 1930's, the surgical approach to lesions of this type remained substantially the same for three decades. The high morbidity and mortality of the procedure caused most surgeons to formulate the opinion that there was no indication to operate an early or very small tumor. As a result of this attitude they elected to wait until the tumor began causing problems to structures other than those concerned with hearing and balance. This philosophy limited operative intervention to cases in which technical removal of the tumor was considerably more difficult.

By the 1950's advances in audiometric and vestibular testing skills facilitated the identification of various types of eighth cranial nerve lesions. Jerger's¹¹ study of the tracings obtained through Bekesy audiometry improved our ability to distinguish cochlear from eighth nerve lesions.

Improvements in temporal bone radiography permitted critical evaluation of the inner ear and internal auditory canal. Standardization of technique made possible absolute measurement and comparison of canal size.

After observing the filling of the internal auditory canal during the performance of a cervical myelogram, Scanlan developed the technique of posterior fossa myelography.¹² For the first time the contour of the internal auditory canal and the size of the lesion could be determined prior to surgery, thereby allowing advanced surgical planning and the avoidance of fruitless explorations.

DIFFERENTIAL DIAGNOSIS

Early in the course of the disease, the patient may be completely asymptomatic. Commonly, however, patients recall a sensation of aural fullness which persisted for some months and in many cases caused them to seek medical attention. This symptom has been erroneously interpreted by many as representing eustachian tube dysfunction related to allergy or a chronic upper respiratory infection. Later, unilateral tinnitus develops and its significance is often

A 1961 graduate of the University of Southern California School of Medicine, Robert J. Keim, MD, has been certified by the American Board of Otolaryngology. He is presently associate professor and interim chairman of the Department of Otorhinolaryngology at the University of Oklahoma Health Sciences Center. Dr Keim is a Fellow of the American Academy of Otolaryngology and Ophthalmology, the American Laryngological, Rhinological and Otological Society, the American Neurotology Society and otologic consultant of the Oklahoma State Department of Health.

discounted by the patient and physician alike.

Hearing loss usually occurs during this time but may not be noted by the patient and cannot be discovered by testing with use of whispered voice, watch ticking or tuning fork. This hearing loss is in the high frequency range and can be detected only by audiometry. Careful consideration of the possible existence of a CPA tumor must be given any patient who demonstrates a dissimilarity in hearing acuity. In my practice I have seen several young patients with large tumors who could easily have escaped discovery had their 10-decibel difference in hearing acuity been ignored.

It should be emphasized at this point that clinical experience has now shown that minimal symptomatology does not necessarily indicate a small tumor. Hardy and Crowe demonstrated that the majority of acoustic tumors develop from the superior vestibular nerve and for this reason will produce alterations in vestibular function. It has been estimated, however, that 10% of eighth nerve neuromas develop from the inferior vestibular branch. Since this division serves only the posterior semicircular canal and saccule, vestibular testing may not disclose the presence of this lesion until it has achieved sufficient size to compromise function of the superior vestibular nerve.

Generally, disturbances of equilibrium are rather insidious in their development and when present, they may be either constant or intermittent and are usually aggravated by changes in head position. Precipitous onset of disequilibrium is an unusual clinical pattern for lesions in the cerebellopontine angle.

As the tumor enlarges and encroaches upon the trigeminal nerve, alterations in corneal and facial sensation develop. Paresthesias of the face which progress to hypesthesia usually imply a relatively large lesion and must be differentiated from a neuroma of the trigeminal nerve.

Progressive peripheral facial weakness or paralysis are also relatively late consequences of an acoustic neuroma. Similarly, these changes must be differentiated from a primary tumor of the facial nerve.

CLINICAL EVALUATION

A CPA lesion must be seriously considered in any patient who manifests any one or a combination of the following signs and symptoms:

1. Unilateral aural fullness.
2. Unilateral tinnitus.
3. Dizziness, unsteadiness, or ataxia.
4. Asymmetric sensorineural hearing loss (even if the thresholds are within normal limits).
5. Unilateral corneal hypesthesia.
6. Unilateral facial paresthesia or hypesthesia.
7. Progressive facial weakness.

Initially, tinnitus and hearing loss may be so subtle that only the most discerning patient will note the difficulty. When hearing is tested, however, it is not uncommon to observe an asymmetric sensorineural (nerve or perceptive type) hearing loss. Even though the loss is found to be relatively small, the patient will usually demonstrate an inordinate difficulty in understanding the spoken word. This symptom is frequently the reason these patients seek medical help. They are aware of difficulty in understanding what is being said even though the intensity of the sound seems adequate. Because the same features are seen in patients with presbycusis (hearing loss due to aging) they may be erroneously diagnosed and a hearing aid recommended. The natural history of neuromas includes progressive deterioration of hearing until the ear is non-functioning.

Only one-third of the patients will have symptoms of true vertigo, the others will have a feeling of unsteadiness which may be precipitated by or aggravated with rapid changes in position. Unsteadiness may be so mild at times that the patient will completely forget about it.

After the initial symptoms, there may be a quiescent period lasting for several years. During this time, the tumor may be growing out of the internal auditory canal.

Most reports indicate that the next cranial nerve to be involved is the trigeminal. When this occurs, there are symptoms of numbness of the face in the distribution of this nerve. The motor portion of the trigeminal nerve is usually spared along with the facial nerve until very late in the course of disease.

As the tumor enlarges, the cerebellum is compressed and the patient may note slurring of speech, incoordination, ataxia, and inability to perform fine manipulations.

Occipital and cervical headache may be seen early or late in the disease. The mechanism of this is thought to be due to the vestibulo-spinal reflexes causing tensing of cervical spine muscles in their attempt to accommodate for the

abnormal vestibular responses produced by the patient's early unsteadiness. Careful examination of patients with these symptoms is necessary before attributing this problem to tension.

When the glossopharyngeal and vagus nerves become involved, symptoms of dysphagia, regurgitation, aspiration and hoarseness may be present. Again, these are late consequences and may easily be misinterpreted as a "small stroke."

The subtle nature of the signs and symptoms of acoustic neuromas necessitates a high index of suspicion supplemented by a detailed history and a physical examination with special emphasis on cranial nerve function. Of key importance is examination of the eighth cranial nerve. Examination can be considered adequate only when audiometry and vestibular testing have been performed. Advances in these two areas of testing warrant more detailed discussion.

AUDIOLOGY

The traditional techniques of asking the patient to listen to a watch, repeat whispered words, or respond to a tuning fork have now been found inadequate for the evaluation of any type of hearing loss and are useless in the early identification of CPA lesions. An asymmetric sensorineural hearing loss demonstrated by pure-tone audiometry is a significant finding that may not be associated with any symptoms. Usually the configuration of the loss will show greater impairment in the high frequencies than in the low. Demonstration of any abnormality in hearing acuity necessitates further audiometric testing. The next most important test is speech audiometry. Lesions of the CPA quite frequently produce an inordinately poor understanding of speech with relatively minimal impairment of audiometric threshold. In one study, two-thirds of the patients with confirmed acoustic neuromas had discrimination scores of 30% or less. Half of the group had absolutely no capacity for understanding speech.¹³

CPA lesions, particularly acoustic neuromas, produce a change in hearing referred to as adaptation or auditory fatigue. In this test, the patient is expected to hear a continuously presented tone, just above threshold, for one full minute. A patient who is unable to achieve this, unless the intensity level is repeatedly increased throughout the test period, should be

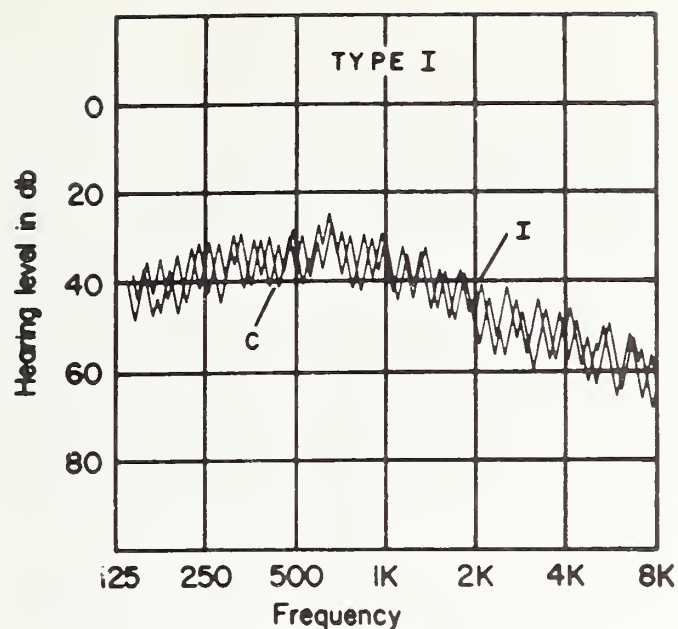
suspected of having a CPA lesion. This phenomenon can also be demonstrated by use of Bekesy audiometry¹¹ and impedance audiometry.³

Bekesy audiometry involves an electronic instrument which automatically presents a continuously variable tone starting at 100 Hertz and extending to 10,000 Hertz. The intensity of the tone is altered by activation of a switch held by the patient and the responses are automatically recorded. Initially, the patient is presented with pulsed tone stimuli, then the test is performed with a continuous tone. The response patterns for the interrupted and continuous stimuli can be categorized in one of four groups. (Fig. 1). Lesions of the eighth cranial nerve usually result in a pattern identified by Jerger as Type III or Type IV. Marked separation in the interrupted and continuous tracings is a prominent feature of these patterns and is significantly greater than that seen in Type II (inner ear disease). At times, Type II patterns may be seen with early lesions. This is apparently the result of cochlear ischemia produced by tumor compression of the vessels serving that organ. Care must be taken to distinguish this mechanism from lesions such as Meniere's Disease, ototoxic drugs, and noise trauma.

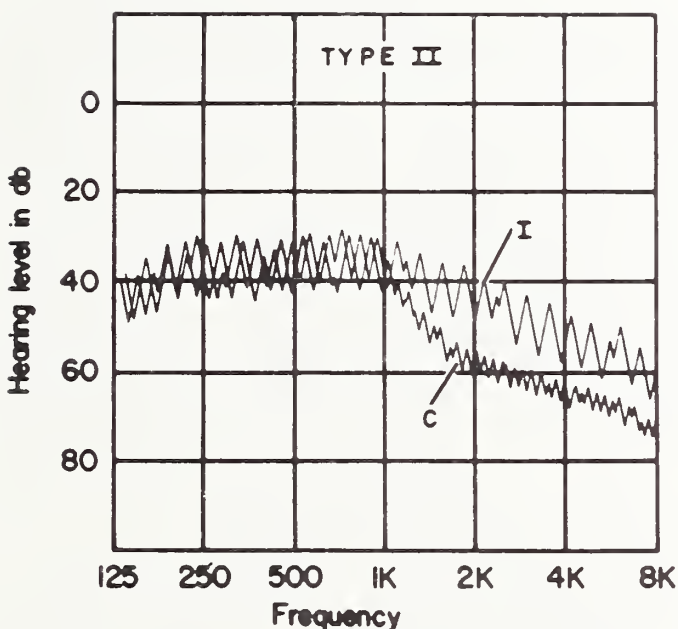
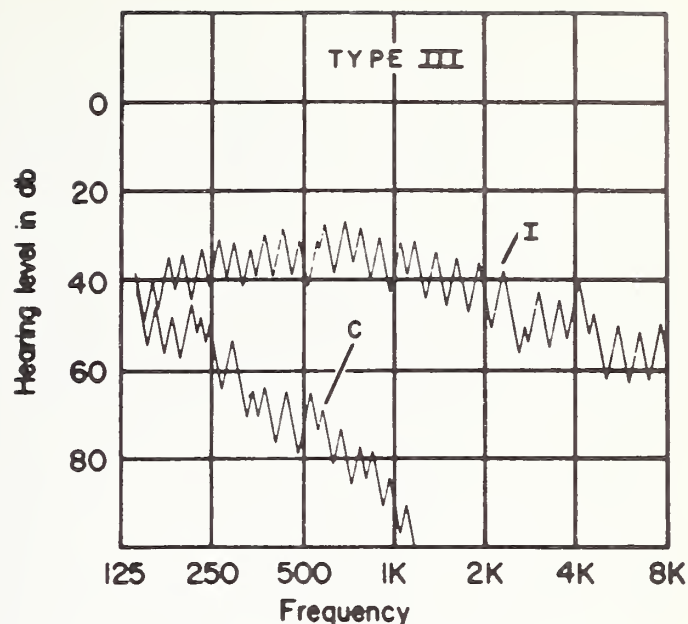
Lesions intrinsic to the cochlea or those causing circulatory compromise to this special organ also have abnormal sensitivity to sound. This characteristic is referred to as recruitment and may be determined by any of a number of tests. Currently used recruitment tests include Alternate Binaural Loudness Balance (ABLB), Short Increment Sensitivity Index (SISI), and the Bekesy test.

Even with all of these developments in audiology, no one audiometric test can be considered definitive for identifying the CPA lesion. A selected battery of auditory tests is necessary.

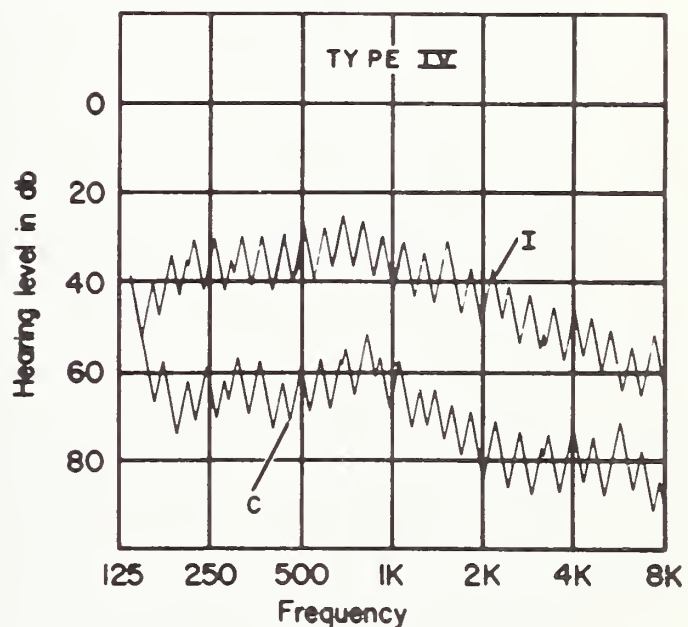
A new form of testing is now becoming available in scattered areas of the United States and is referred to as evoked response audiometry. Briefly, this test involves electronic monitoring of changes in brain wave activity when the auditory mechanism is stimulated with a burst of sound. By use of a mini-computer, all non-essential information is averaged, or removed, leaving the signal pattern of each neuronal discharge involved with the auditory pathway. By studying the period of latency of this discharge pattern it has been possible to demonstrate abnormal test results in well over 90% of patients with proven neuromas.¹⁴



Type I patterns occur in normal ears, disorders of the middle ear, and some types of sensorineural hearing loss.



Type II patterns occur in disorders of the cochlea.



Type III and Type IV patterns occur in disorders of the eighth cranial nerve.

Figure 1

Jerger classification of classic patterns of Bekesy audiometry tracings and the lesions most commonly associated with their appearance.

VESTIBULAR EVALUATION

With the advent of electronystagmography (ENG), there is little reason to rely upon less accurate methods of testing vestibular function. Utilizing the corneal-retinal potential of the eye, it is possible to accurately record nystagmus even when the eyes are closed. (Fig 2) Jongkees¹⁵ demonstrated that this technique provides a three times better chance of identifying

spontaneous nystagmus than any other method. Office caloric tests, utilizing 0.2 cc of ice water, may be of some help in identifying patients with total absence of vestibular function. Lesser impairments in function are not as easily identified by this means of testing. Approximately 80% of patients with proven CPA lesions will demonstrate abnormal results by means of ENG.

ENG has been shown sensitive enough to detect lesions in the brain stem and cerebral cor-

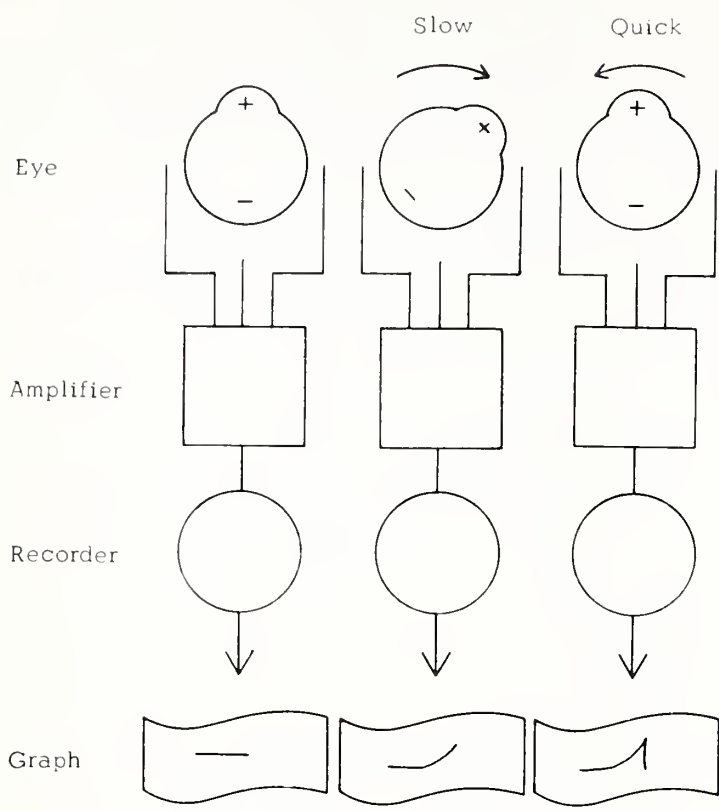


Figure 2

Schematic representation of electronystagmographic monitoring technique. By convention, upward pen deflection on the graph indicates eye movement to the right.

tex if other forms of stimulation are included in the test series. Simultaneous monitoring of vertical as well as horizontal eye movement has also been demonstrated to be a significant clinical value. (Fig 3) Over the past 15 years clinical experience has established ENG as a necessary and invaluable technique for the evaluation and localization of intracranial as well as vestibular lesions.

ROENTGENOGRAPHY

Radiography of the temporal bone is one of the most demanding studies in radiology. Not only does it require sophisticated equipment, but considerable skill is required to obtain and interpret films. In 90% of patients, later proven to have an acoustic neuroma,¹² the findings are abnormal. In general, the Stenvers, Towne, and transorbital views of the petrous ridge are advised for visualization of the internal auditory canal. As little as a one millimeter difference in the height of the canal is considered to be significant.¹⁶ Improved visualization of this area can be achieved by use of polytomographic studies of the temporal bone.

To this point, all forms of examination are non-invasive but provide significant information relative to the identification and staging of a lesion in almost all cases. Computerized axial tomography (CAT) is in midground between the non-invasive and invasive tests. There is no question that this new technique of examination has added significantly to our diagnostic armamentarium. It is now quite evident, however, that intravenous infusion of contrast media is essential to delineate lesions in the CPA. At best, CAT scan is sensitive to lesions no smaller than two centimeters and then it must be outside the internal auditory canal.

Posterior fossa myelography, angiography, and pneumoencephalography are used to define the size of larger lesions and their possible encroachment on associated structures. Because of the increased risk associated with these studies, they are usually reserved until a lesion is indicated by the results obtained with non-invasive testing. These invasive modalities are reserved by the surgical team for planning the approach to and removal of the tumor.

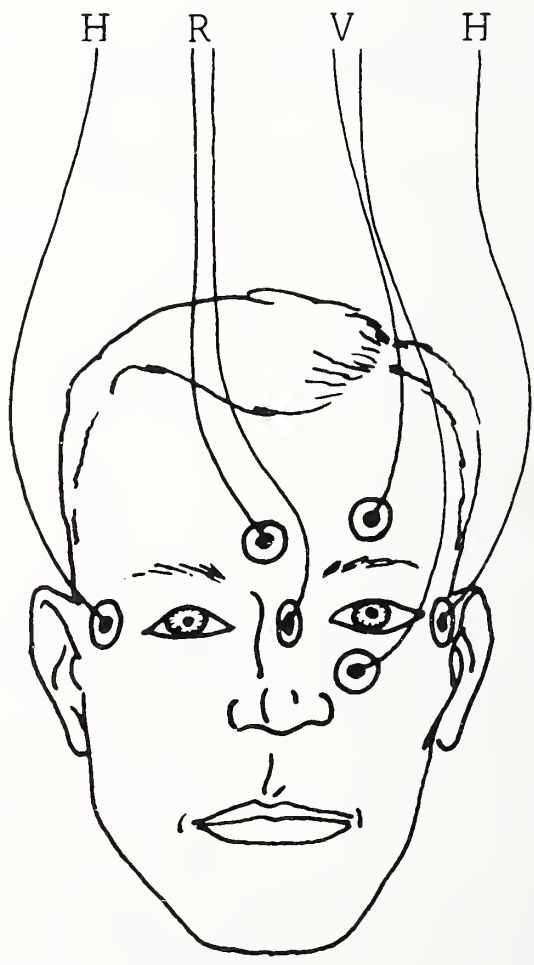


Figure 3

Standard electrode placement for monitoring of horizontal and vertical eye movements. Combined monitoring of this type permits recording of complex eye changes such as oblique movements. (H - Horizontal; R - Reference; V - Vertical).

CEREBRO-SPINAL FLUID (CSF) EXAMINATION

When Poole and Palva examined the CSF protein in 55 patients with acoustic neuromas, 96.5% of them had protein concentrations greater than 50 milligrams percent.¹⁷ Over the years, this elevation has been viewed as characteristic of this lesion. After reviewing a large series of patients with proven neuromas, it was found that 30% of these patients had normal protein levels.¹⁸ This variation in findings is considered a reflection of the fact that most of these tumors were smaller and confined to the internal auditory canal. It can now be assumed that an elevated CSF protein indicates a large lesion but normal levels in no way exclude the presence of a tumor.

CHEMICAL EVALUATION OF PERILYMPH

In 1966 Silverstein and Schuknecht reported the chemical analysis of inner ear fluid taken from patients with Meniere's Disease and acoustic neuromas.¹⁹ Those patients with acoustic neuromas were all found to have elevated protein concentrations. Approximately half of these had normal cerebral-spinal fluid protein values. While this test is invaluable, the necessity for performing an operative procedure on the ear to obtain the fluid is a major disadvantage. Even then, the procedure is indicated only for non-hearing ears.

METHODS OF MANAGEMENT

History has shown that removal of large tumors is associated with a high morbidity and mortality. Since testing techniques now exist that will demonstrate small tumors without risk to the patient, the practice of delaying testing or surgery should be viewed as an unacceptable approach to managing patients with these lesions.

A prerequisite to planning surgery is the preoperative determination of tumor size. Acoustic tumors can be divided into three groups: (1) small in size, confined to the internal auditory canal; (2) medium in size, extending out of the canal into the angle but not producing additional cranial nerve palsies; (3) large in size, extending into the angle and are associated with other cranial nerve findings.

Three basic approaches to the removal of these tumors are now recognized and their application is strongly influenced by tumor size,

and the judgement of the surgical team. Basically they include approaching the tumor through the middle cranial fossa or by way of the mastoid and labyrinthine mechanism, or by means of a suboccipital craniotomy.

SUMMARY

Lesions of the cerebellopontine angle may vary in type, however, acoustic neuromas are by far the most common. Contrary to previous clinical impressions, these tumors are relatively common in the general population. Developments in the field of neuro-otology, neurosurgery, and radiology now make early identification practical and relatively risk-free. Application of such testing and ultimate discovery of these lesions, however, is still dependent upon a high index of suspicion by physicians involved in all fields of medical care.

The goal of surgical intervention is no longer limited to preservation of life but now carries the expectation of preserving facial function and even preservation of hearing. These high levels of surgical results can only be achieved, however, if all physicians are aware of the cardinal signs of these lesions and work toward initiating appropriate testing for the purpose of early identification.

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P.O. Box 26901, Oklahoma City, Oklahoma 73190.



News From The Oklahoma State Department of Health

Can Septic Sewage Be a Part of Your Drinking Water

A striking 26 percent, or 203,174 homes in Oklahoma are connected to septic tanks, and most of these homes have a private water well. This has created a real hazardous situation where septic sewage could leach into the well and your drinking water. Small lots in older subdivisions are comprised of septic tank leach fields and water wells which could not be separated a minimum of 50 feet as required by state health department regulations.

The Oklahoma Legislature has passed laws to prevent this potential health hazard. The law now requires the Oklahoma State De-

partment of Health and county health departments across the state to approve all subdivision plats before the plat can be filed with the county clerk.

This statute gives the health department the opportunity to test the soil and make sure the subdivision soil is conducive for the use of septic tanks, and the lots are large enough to accommodate a well, a septic tank, and a house.

The law specifies that lots with wells and septic tanks have to be one acre in size, while lots with septic tanks and a community water supply only require one-half acre in size.

The Oklahoma State Department of Health is grateful to the Oklahoma Legislature for this law which has been so effective in keeping septic sewage out of the proud homeowners' drinking water.

—John H. Armstrong, RPS

Chief, Environmental Protection Service

State Department of Health □

COMMUNICABLE DISEASES IN OKLAHOMA FOR NOVEMBER, 1978

DISEASE	NOVEMBER 1978	NOVEMBER 1977	OCTOBER 1978	Total To Date	
				1978	1977
Amebiasis	3	1	2	31	21
Brucellosis	2	—	1	7	3
Chickenpox	—	23	—	—	969
Encephalitis, Infectious	—	2	2	19	13
Gonorrhea (Use Form ODH-228)	1069	1320	1191	12513	12215
Hepatitis, A, B, Unspecified	41	92	65	645	750
Leptospirosis	—	2	—	—	3
Malaria	1	—	—	1	—
Meningococcal Infections	2	1	—	19	15
Meningitis, Aseptic	6	11	14	70	76
Mumps	—	28	—	—	557
Rabies in Animals	12	8	11	178	230
Rheumatic Fever	—	—	—	—	3
Rocky Mountain Spotted Fever	—	4	3	54	70
Rubella	5	—	1	18	36
Rubella, Congenital Syndrome	—	—	—	—	—
Rubeola	4	4	1	18	67
Salmonellosis	49	19	58	332	311
Shigellosis	52	11	48	362	77
Syphilis, Infectious (Use Form ODH-228)	5	6	10	101	78
Tetanus	—	—	—	3	—
Tuberculosis, New Active	33	13	20	320	274
Tularemia	6	—	1	11	12
Typhoid Fever	2	1	1	5	2
Whooping Cough	—	1	1	14	16

AMA Action on Chiropractic Issue Explained

One of the most significant and controversial items at the December meeting of the AMA House of Delegates was the proposed settlement of a lawsuit brought by a Pennsylvania chiropractor against the AMA. After extended debate, the House of Delegates moved to reaffirm the right of the AMA Board of Trustees to settle litigation for the AMA. In the end the House accepted the fact that state laws in all 50 states recognized chiropractors as *licensed limited practitioners*, and the House also recognized the option of the individual physician to accept or reject any patient referred to him by anyone, including chiropractors.

The House action provides for the following:

- The AMA supports the right of a physician to choose those persons whom he or she will accept as patients and also to exercise his or her choice by the terms of contractual arrangements with other physicians, medical groups, hospitals or the other institutions.

- The AMA will continue to support a physician's right to freely choose those whom he or she will serve in the absence of legal considerations to the contrary.

- The obligations which a physician has to provide information to a patient or any other party are those required by customary good medical practice and law.

- The Judicial Council will be requested to reconsider Article 3.70 of Section III of Judicial Council Opinions and Reports.

- The AMA should continue to warn the public of the hazards to health of entrusting the diagnosis and treatment of diseases such as cancer, diabetes, malignant hypertension, cardiovascular stroke and infections to the practitioners who, in the treatment of these conditions, rely upon the theory that all disease is caused by misalignment of the spinal vertebrae and can be cured by manual manipulation of the spine.

- The authority of the AMA Board of Trustees to have made and to have agreed to the proposed settlement in this case be acknowledged and confirmed.

- Nothing in the above five items should be interpreted or construed as an amendment to the Principles of Medical Ethics of the AMA. □

Twenty Named to SHCC, HSA

State Health Coordinating Council (SHCC) recently appointed for three-year terms include: Dr Orange Welborn, provider-at-large; Gerald Smart, Congressional District 3; Ralph Rhoades, provider-at-large; Marilyn Force, Congressional District 1; J. D. Cheek, consumer-at-large; Maxine Chuculate, filling an unexpired term; Udell La Victoire, Congressional District 5; Senator Gideon Tinsley, Dr C. S. Lewis, Oklahoma Foundation for Peer Review; Sara Ann Redwine, EMS Advisory Council; and Burt Mackie, representative of the State Regents.

The following were named to the Health Systems Agency (HSA) board: Joe Gunn, Miami hospital administrator; Otho Whiteneck, DDS; John Coffee, Welborn, Walter Wilson, DO, and Sue Klingler, an instructor of the OSU Nurse training program.

Also named were Ruth McCormick, Claremore; Charlene Von Tungelen, Calumet; Marilyn Force, Tulsa; La Victoire; Edna Couch, Norman; Lou Hummill, Okmulgee and Dr Jim Colclazier. □

AMA Rebounds FTC "Attacks"

The Federal Trade Commission (FTC) and American Medical Association (AMA) have continued to lock horns over advertising and physician education in recent months.

An FTC ruling charges the AMA, the Connecticut State Medical Society and the New Haven County Medical Association with restraining physician-advertising and physician-participation in certain health care delivery systems.

The ruling states that the AMA "will be permitted to set ethical guidelines for members after obtaining the permission and approval of the FTC."

AMA officials are not pleased and have appealed the ruling to the Supreme Court.

FTC concluded the issue of advertising with comments on the association's influence over accreditation for medical schools.

The FTC charges that the AMA and the Association of American Medical Colleges could theoretically limit the number of people attending medical schools over the standards set by the Liaison Committee on Medical Education.

An AMA spokesman calls the charge an "attack" and points to the growth of accredited schools, from 80 to 124 in the past 12 years. □

Melinda Turner Joins OSMA Staff

The OSMA recently expanded the publications department with the addition of Melinda Turner.

She joined the staff as a publications specialist in November and will be writing for *The Journal*.

A 1975 Oklahoma Christian College graduate, Ms Turner was employed in the newspaper media as a photographer and news editor. □

CORRECTIONAL MEDICINE

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Medical Director
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Prison Medicine Sustains Manpower Shortage

By Melinda Turner
Publications Specialist

Prison medicine needs the brightest, youngest and most successful physicians coming out of medical schools today, says Dr Armond Start, medical director for the state corrections department.

In the incarcerated environment where health care is not a primary objective and where a second opinion is not readily available, the best minds are needed.

Since 1977, Dr Start has developed a medical health care plan for Oklahoma inmates through the Lexington Correction Assessment and Reception Center.

"We will have the most modern program of any state in one more year. We want to be a model health care system for other states to use as a pattern. Right now there are only a few states ahead of us," Dr Start said.

The present program began an evolution eight years ago when the OSMA went on record in the state administration offices with a report of the prison medical facilities.

Following the 1973 McAlester riot, one of the most costly to both structures and facilities in the nation's history, a civil rights suit was filed by an inmate charging unconstitutional medical care. It brought the medical inadequacies to the court's attention.

The state was given 90 days to submit an adequate health care plan. Three years later the plan to create a central office, unite medical records and hire a medical director was approved.

Formerly each penal institution had been autonomous with its own standards, regulations and form of records. A physician was recruited for each institution from the nearest town.

Dr Start and his staff abolished the autonomy of institutional health care systems and replaced it with a manual for statewide standard procedures and an integrated "Problem Oriented Medical Records" (POMR) system. They designed a primary health care assessment center and centralized pharmaceutical supplies and appliances in the new correctional center at Lexington.

Now all inmates in the Oklahoma penal system spend their first two weeks at the assess-

ment and reception center for examinations and treatment, where a physician's assistant screens each inmate and collects historical data for the POMR jacket.

The patient is examined and given necessary immunizations. Health problems are remedied before the inmates leave the reception center.

"We are really proud of the assessment and reception center. This is the first time for some of these people to see a physician. We have some young people, ages 18 and 20 years, who have never had an eye examination and are functionally blind.

"We put a pair of glasses on them, and for the first time they can see. They sleep and shower with them on. Just think how different their lives might have been if someone had caught their problem earlier," the medical director said.



Armond Start, MD

The medical director spent most of the legislative appropriations to replace obsolete medical equipment and purchase more dental chairs and lab equipment.

Dr Start launched the new program with 33 employees. The staff has expanded to 83. But he still needs to fill 94 more positions with physicians, dentists, nurses, physician assistants, lab technicians and nurse practitioners who can deal with a drug-oriented culture.

"In the free world, people take drugs to cover up insecurities or to get comfortable. Some can handle drugs and have money to support their habit legitimately.

"I would say that 60% to 70% of the Oklahoma inmate population is in for being intoxicated, buying or selling drugs, or committing crimes to solve money problems related to drugs. There is a tremendous pressure from the inmates for relief of pain," Dr Start said.

Some state prison populations are on Valium or other tranquilizers, the medical director says, because it is easier to give the inmate what he wants than to deal with his drug oriented life style.

The incarcerated population in Oklahoma is a unique group. "Many of our people are mentally ill or from broken homes. They are often the result of child abuse and stunted growth and development," he said. Dr Start hopes to incorporate a mandatory health education program into the penal institution requirements to supplement the General Education Degree courses.

He hopes to see an outstanding course of

studies on correctional medicine in Oklahoma medical, osteopathic and dental schools.

"I would like to see Oklahoma a leader in correctional medicine; a system that students can study and that provides a model penal health care program for other state officials." □

Physicians' Cost Concept Lacking

House officers, third-year medical students and full-time clinical faculty members at the University of Miami School of Medicine were recently asked to estimate the charges for 17 commonly billed items at the hospital.

Only one per cent of the surveyed faculty, two per cent of the house staff and none of the students knew the correct charges of more than half the items.

"Correct" answers had to come within ten per cent of the actual listed prices of a unit of blood, a semi-private room, a urinalysis, an electrocardiogram, an upper gastrointestinal series and a liter of intravenous solution. □

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Federal Agencies Plan To Revoke Journal Status

The Internal Revenue Service (IRS), the Interstate Commerce Commission and the US Post Office plan to revoke the tax-exempt status of chemistry and physics journals in the United States.

This action will also have an impact on medical journals including the AMA's JAMA.

The IRS has already brought action against the American Medical Association. Meanwhile the Interstate Commerce Commission is studying AMA publications and the postal service is proposing a new rate structure.

At the same time, journals are also facing uncontrolled inflation in the costs of paper and printing.

AMA Journal Editor Dr William R. Barclay says that "if the government persists in the attack on the journals, it will realize very little, if any, money from the taxes and extra postal charges, as many of the journals will die off and will be curtailed."

Many of the advantages enjoyed by Americans can be attributed to scientific research development and the communication between scientists, he said.

"Respect for scientific achievement appears to be waning in this country and there are signs of antielitism in government agencies, indifference to science in the executive branch of government and hostility among some members of Congress," Barclay added.

During the 1979 fiscal year, 61.5 per cent of the AMA budget will be spent for specific programs providing scientific information, promoting the effective delivery of care and continuing to improve the quality of care. □

Resolution 62: AMA NHI Stand

Editor's Note: The Florida Delegation presented the following resolution on National Health Insurance to the American Medical Association House of Delegates. It was adopted December 6, 1978, replacing a long-standing AMA position on NHI. For additional information, see last month's Journal.

Whereas, It is a recognized fact that Americans have the best medical care and delivery

system in the world today, and most polls indicate the public is generally satisfied with both the quality and quantity of medical services; and

Whereas, The polls have consistently reflected that the American people hold their individual physician in higher regard and trust than any other professional; and

Whereas, It is this very personal doctor-patient relationship that will be dismantled and ultimately destroyed by national health insurance; and

Whereas, The primary thrust for a nationalized, socialized system of medical care has continuously come from the political arena where logic is often lacking; and

Whereas, At this time, it would be unwise for organized medicine, at any level, to sponsor or support federal legislation to further nationalize or socialize physicians' services in this country; and

Whereas, There is a need to improve our present system — not by discarding or disregarding our present one; therefore be it

RESOLVED, That the American Medical Association recommend to the Congress of the United States of America modifications to our present health care system embodying the following principles:

1. Requiring minimum standards of adequate benefits in all health insurance policies sold in the United States with appropriate deductible and co-insurance.

2. A simple system of uniform benefits provided by the federal, state, and local governments for those individuals who are unfortunate enough (through no fault of their own, ie, age, disability, financial hardship, etc.) not to be able to provide for their own medical care.

3. A nationwide program by the private insurance industry of America (and government if necessary for reinsurance) to make available catastrophic insurance coverage for those illnesses and individuals where the economic impact of a catastrophic illness could be tragic. All catastrophic coverage should have an appropriate deductible and co-insurance to make it economically feasible and to avoid abuse.

4. A program developed pursuant to these principles should be administered at the state level with national standardization through federal guidelines. □

Continuing Education Keys Rural Career

By Melinda Turner
Publications Specialist

Editor's note: This is the second in a series featuring Oklahoma physicians.

Dr Wallace Byrd's medical career is nearing its 45th year and he still can't wait for the newest medical textbook.

"I enjoy reading them! I believe that continuing education for physicians is extremely important, especially with medical knowledge expanding so fast," the Coal County physician said.

He is a member of the OSMA Council on Medical Education and was instrumental in obtaining the mandatory CME requirement for physicians.

"I voted for it because it is not that hard to do. Nobody has to go out of town, leave their home or fireplace to meet the requirements.

"A huge amount of the work can be done sitting in the den at home. There is so much going on in medicine. I believe that the physician should improve himself and his practice with up-to-date knowledge," the rural physician said.

He recommended to rural physicians who cannot easily attend the European courses or the metropolitan classes to enroll in correspondence courses.

It is possible to fulfill many of the CME requirements in this manner.

"Doctors are like anybody else; it is easy to get involved if they have to and are not allowed to put it off. It is not as hard for city physicians to attend classes. But the rural physicians have the convenience of not leaving home or their fireplaces to meet the requirements," he added.

Dr Byrd says he was pleased with the courses he completed recently because the course material supplied quizzes, pretest, post-test and critique.

"I grant that the warm personal contact with

physicians from around the state is rewarding if a physician is in the position to leave his home for CME classes." But, he said, "Quite a few of us find our schedules restrictive."

Although an advocate of education, Dr Byrd is troubled over the emphasis placed on certain areas of medicine for the young student.

"There is concern in more thoughtful circles that the needs are not so much in the cities where they are flocking to, but in the country where the priority is primary medicine.

"It is the most difficult, most demanding, and most rewarding of the medical areas of study in my opinion," the family practitioner said. "A family physician knows his limitations. Like a conductor of an orchestra, he is the key that brings it all together."

He would like to see a revamping of the system to produce an increase in residencies in family medicine and more emphasis on the general internal medical field.

"A rural doctor has the responsibility of the general populace in his hands where a life depends upon his intellect, wisdom and humility," Dr Byrd said.

Preservation of mankind through quality medical care is a first priority and only a facet of the conservation process for Dr Byrd.

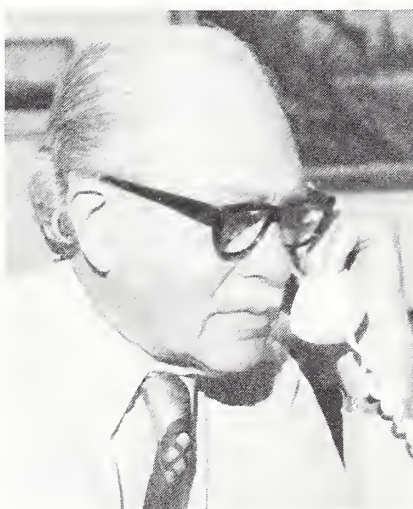
An ardent conservationist, he strongly advocates the saving of the whales, the oceans, the atmosphere and as much as possible of the wilderness to preserve the planet for future generations.

"Jacques Cousteau predicts that we are going to be in trouble in the next hundred years if we keep killing the life in the oceans which will precipitate the end of life on earth," he said.

Both of his parents were humanists and conservationists. His mother was an ornithologist and could recognize 425 species of birds. His father was instrumental in eradicating a fungus disease from the orange groves of Florida and helped organize several departments of public health and hygiene in the 1920's.

Dr Byrd taught ornithology before entering Harvard Law School in 1925. But when the economy collapsed in 1926, he went to work in the auto factories of Detroit as a lacquer sprayman. Later he completed medical school and entered the world of medicine and public health while in the military. He began his civilian practice in 1937.

Today, his interests converge in the total saving of mankind. His search carries him into new textbooks, politics, studies of the earth, its inhabitants and the stars. □



Wallace Byrd, MD

Deaths

FRANK H. MCGREGOR, MD
1922-1978

Frank H. McGregor, MD, medical director of Baptist Medical Center, Oklahoma City, died December 27, 1978. Doctor McGregor was born in Mangum, Oklahoma, and was graduated from the University of Oklahoma College of Medicine in 1950. A fellow of the Southwestern Surgical Congress and a diplomate of the American Board of Surgery, he was also a member of the American Association for the Advancement of Science, the Association of American Medical Colleges and the Association for Hospital Medical Education. He was a clinical professor of surgery at the University of Oklahoma College of Medicine.

EDWIN R. REINSCHMIEDT, MD
1928-1978

Edwin R. Reinschmiedt, MD, 50, Clinton physician, died December 25,

1978, in Oklahoma City. Doctor Reinschmiedt was born in Bessie, Oklahoma, and was graduated from the University of Oklahoma College of Medicine in 1956. Before moving to Clinton, he had practiced in Hominy, Oklahoma. At the time of his death, Dr Reinschmiedt was chief of staff of the Clinton Veterans Center.

FRANCES ELISKA ATKINS, MD
1939-1978

Tulsa, anesthesiologist, Frances Eliska Atkins, MD, 39, died November 26, 1978. Born in Norman, Oklahoma, Dr Atkins was graduated from Washington University School of Medicine in St. Louis. Certified by the American Board of Anesthesiologists, she was a member of the American Society of Anesthesiologists and the International Anesthesia Research Society. □

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Midlife Crisis Called Fiction

The midlife crisis is fiction says the chief psychiatrist of Johns Hopkins University.

"The message that in midlife we can expect to come apart, that we're entitled to come apart, is a myth and sometimes just a rationalization," Dr Paul McHugh, Baltimore, says.

He says the tasks of middle years are different from those involved in mastery of skills such as reading and writing and completing an education. In adulthood, life focuses on commitment, work, responsibility and sharing.

"Life is a series of difficulties and chances. Bad things do happen. However, life's obstacles are less dramatic than implied by such chronologically laid out events as a midlife crisis." □

OSMA ANNUAL MEETING

May 3-5, 1979

Williams Plaza Center

Tulsa, Oklahoma

Outdoor Life Awards Dr George Hulsey

Hunting encourages humility, a difficult concept to explain, says Dr George Hulsey, recipient of the 1978 Outdoor Life Conservation Award.

The Norman general practitioner and hunter decided years ago to help save Mexico's wildlife from its budding oil industry. After six years, an agreement was signed by Mexican and American officials to establish a training program for biologists . . . part of the solution.

"Mexico is a developing nation and a rich one in wildlife resources. It has unlimited hunting and fishing, and I hated to see the scheme of nature upset.

"My feelings encouraged me to find a way that the Mexican government could profit from our mistakes in wildlife management," Dr Hulsey said.

A cooperative program was drafted in which Mexico could get the wildlife biologists they needed for the immediate research. It included a plan for Mexicans to receive training in Wildlife Management in the US and return to apply the training in their own country.

"The Outdoor Life Conservation Award stressed Dr Hulsey's international involvement, but it also recognized his participation in issues facing Oklahoma and the US.

"We need to increase wildlife resource awareness and the implication of birth control and pollution. We must stress the proper steps for land use and organize our growing pattern.

"I believe we should preserve the quality of life, the open space of green belts rather than sucking up industry and rapid topsy turvy growth," he said.

The Norman physician was head of the Oklahoma Wildlife Federation in 1973 when the Oklahoma Department of Industrial Development and Parks attempted to take over 9,000 acres of wildlife habitat for oil royalties.

He has fought the anti-trapping lobby and the gun-control interests. He has been a hunter since he was eight years old and also enjoys bird watching.

"I do not find a conflict between hunting and conservation. In the eyes of certain groups there is a concern for the individual animal and not for the species as a whole. Some groups expand

to the point of eating themselves out of house and home and destroy the habitats of other species.

"Man has a driving force within him to build empires and fortunes. I believe that is the hunting instinct that has been urbanized into other manifestations. The non-hunter views hunting with far too much emphasis on the kill," Dr Hulsey said.

His motivation is the development of self and the oneness with nature. The purpose of the hunt is a hunt for himself.

"After I come back from a long and difficult hunt, I am very humble about nature and the scheme of things. It is difficult to explain to someone who does not hunt," he said. □

Air Force To Give Medical Scholarships

Current undergraduate pre-medical students who have been accepted to medical school may now compete for several hundred Air Force Health Professions Scholarships. These scholarships are to be awarded to students accepted into medical schools as freshmen or at the beginning of their sophomore year. The scholarship provides for tuition, books, lab fees and equipment, plus a \$400 monthly stipend. Information may be obtained by contacting Howard McDermott, 711 Stanton L. Young Blvd., Suite 111, Oklahoma City, Oklahoma 73104, or call collect (405) 231-5247. □

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Birth Defect Ruling Labeled 'Can of Worms'

A recent birth defect ruling in New York captured the attention of Oklahomans and made physicians aware of the effect of new legal definitions of life and the technique of amniocentesis.

New York's highest court ruled that the parents of defective children can sue doctors who fail to advise them that their unborn children might have birth defects.

The decision does not guarantee that the doctors must pay damages. What the high court was deciding was the question of whether the parents have a legal right to pursue their cause in court.

The ruling was not a surprise in terms of decisions that have preceded it and those that are in the courts now, says George M. Short, of the Short, Barnes, Wiggins and Margo law firm.

"It is a whole can of worms. The New York decision was not all that startling in terms of decisions in other courts and states. It does require some comment though. I have been working on a brief dealing with a birth defect and we

are researching similar cases around the country.

"New York is not all that unusual but it is not a simple dogmatic situation. There is no reason to get excited because we are dealing with an issue with quite a history," Short said.

For every case that is decided in one state, Short says another state will rule just the opposite.

In 1946, a District of Columbia court adopted the viability test where the child does not have a legal action if born illegitimate or with birth defects. In 1964, New York court decided that the child could sue the natural father for 'wrongful life' when the mother was raped.

Oklahoma courts have not said anything about the recent ruling Short said. □

Miscellaneous Advertisement

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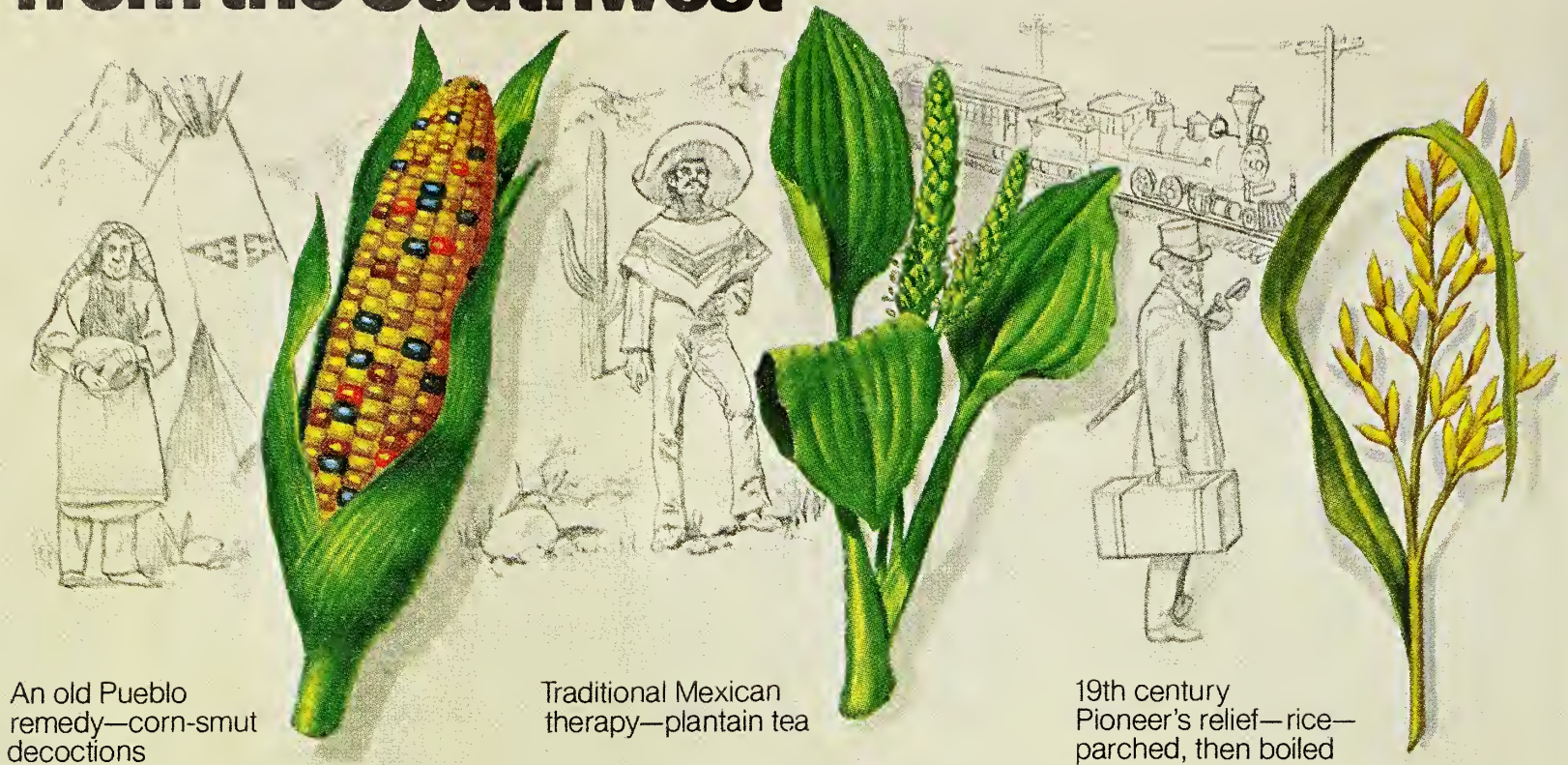
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parched, then boiled

PRELIMINARY SCIENTIFIC PROGRAM

1979 ANNUAL MEETING
OKLAHOMA STATE MEDICAL ASSOCIATION

Thursday Afternoon, May 3rd

- 2:00 p.m. **"COAGULOPATHIES"** George W. Schnetzer, III, MD, Chairman. Guest Speakers: John A. Penner, MD, Professor of Internal Medicine, University of Michigan Medical School, Ann Arbor, Michigan. Fletcher B. Taylor, Jr., MD, Oklahoma City. Dale E. Van Wormer, MD, Tulsa.
- 2:00 p.m. **"UPDATE ON ANTIBIOTICS"** Eric L. Westerman, MD, Chairman. Guest Speakers: Ronald L. Nichols, MD, Henderson Professor of Surgery, Tulane University School of Medicine, New Orleans, Louisiana. Gerald Bodey, MD, Professor of Medicine, M. D. Anderson Hospital & Tumor Institute, Houston, Texas. David Smith, MD, Oklahoma City.

Friday Morning, May 4th

- 9:00 a.m. **"RECENT ADVANCES IN THE MANAGEMENT OF CANCER"** Floyd F. Miller, MD, Chairman. Guest Speakers: George J. Hill, MD, Chairman, Department of Surgery, Marshall

Of Pills and Practice

I remember those dingy placards that used to — and probably still do — hang on the walls near the cash registers in small cafes. They bore such aphorisms as “In God We Trust; All Others Pay Cash” and “When Banks Start Selling Hamburgers, We’ll Start Cashing Checks.” With the advent of House Bill 1120, introduced during the first session of Oklahoma’s 37th Legislature, there might be a market for a new placard — designed to be displayed in physicians’ offices — which states “When Pharmacists Quit Practicing Medicine, We’ll Quit Dispensing Pills.”

There is little doubt that most pharmacists will deny they practice medicine, but few will deny that they oblige their customers by suggesting various remedies available on their shelves, for various symptoms and ailments. And how many pharmacists respond to “Hi, Doc!”? In truth, most pharmacists practice some medicine and most physicians dispense some pills.

If our patients will benefit from a law which prohibits us from packaging or selling pills, it follows that they also will benefit from a law which prohibits pharmacists from practicing medicine.

Specifically, such a law should prohibit pharmacists from suggesting, promoting, naming or selling any patent or proprietary medicine for the relief of any symptom, ailment or complaint described, defined or reported directly or indirectly by a customer or a prospective customer, except when such phar-

macists have been examined and licensed by the State Board of Medical Examiners. Furthermore, such a law should provide for fees, fines and penalties as appropriate to its objectives and purposes, and for periodic inspections of the premises on which such practices are conducted when licensed.

As an additional provision for the further protection of public health and safety, the law restricting pharmacists should require the posting of adequate and prominent notices throughout such places of business to the effect that the pharmacist on duty is not a physician or a doctor and is, therefore prohibited from engaging in any activity which could be construed as the practice of medicine and that all inquiries concerning the alleviation of symptoms, ailments and disorders of whatever nature will be referred to a duly licensed health practitioner. If such inquiries are answered by any other response, the pharmacist and his place of business must be under the direct control and management of a licensed physician.

With a few refinements, the appropriate number of “whereases” and “hereinafters,” such a law might define more clearly the roles of the pharmacist and the physician. But would such a law — or will the laws based on House Bill 1120 — do anything to promote the general welfare of the citizens of our state? Obviously not. At a time when our society deserves the utmost cooperation of all health care professionals, no one needs House Bill 1120. It will ultimately disserve everyone, even those few it seems designed to serve.

MRJ

I am becoming increasingly convinced that I missed my calling when I went to medical school. Medicine was the right choice, but orthopedics was not. The past ten months have convinced me that I should have gone into psychiatry. No matter where I go I am confronted with other people's anxieties. Doctors tell me about reoccurring nightmares, about waking up in a cold sweat, and about screaming out in the middle of the night. They are worried and confused. The problem they face is one common to us all . . . continuing medical education.



Having just returned from the AMA's National Leadership Conference, I, too, am somewhat confused about the direction continuing medical education should take. While I fully support the objectives of CME, there is increasing concern about whether or not CME should be mandatory. The mandatory part of the program somehow seems to lessen its potential.

But doctors, never fear. I'm convinced that even if continuing medical education remains mandatory, it will not be the death of us all.

For example, most of us already fulfill the majority of the requirements of the OSMA continuing medical education program. All that is now required is that we submit our CME hours to the AMA and that we request the Physicians Recognition Award. Since the OSMA CME program does seem to be misunderstood by many physicians, however, I would like to touch upon some of its major points.

First of all, each OSMA member must have an active AMA PRA on January 1, 1981. This does not mean, however, that you must wait until December, 1980, to file for this award. The AMA PRA is good for a three-year period, so if you have already accumulated 150 hours of CME credit, you may file for your PRA today and you will fulfill the OSMA requirement in 1981. For example, if you file your CME hours today and receive an AMA PRA on May 1,

1979, you will not be required to receive another award until May 1, 1982, and so on. Or, if you received a PRA on November 1, 1978, you will meet the OSMA requirement until November, 1981, when your present PRA will expire. The point I am trying to make is that we did not begin anew with CME when this program went into effect a year and a half ago. The hours you took previous to this still may be applied toward the AMA PRA. The main thing to remember is that your PRA must be active on January 1, 1981, which means that it must have been received anywhere between January 1, 1978, and January 1, 1981. Another thing to remember is that after January 1, 1981, you may not let your PRA lapse. Our program requires that all OSMA members maintain an active PRA at all times after January 1, 1981.

The other point I would like to stress is the ease with which you can fulfill this requirement. Of the 150 required hours only 60 must be from Category I courses. These, of course, are carefully monitored and must be attended in person. The other 90 hours, however, may be achieved by attending hospital staff meetings, by reading medical journals, by writing scientific papers, and in a number of other ways. If every doctor in Oklahoma would attend the OSMA annual meeting each year, he would fulfill nearly all of his Category I requirements. And as I have already pointed out, the other hours are relatively easy to accumulate.

One last point, the CME requirement in Oklahoma has nothing to do with your license . . . only your OSMA membership.

So doctors, keep working at it and don't get discouraged. CME is designed to make us better doctors, not to make us need one.

For additional information on CME requirements, contact the American Medical Association, 535 North Dearborn Street, Chicago, Illinois, 60610, or the Oklahoma State Medical Association, 601 Northwest Expressway, Oklahoma City, Oklahoma 73118. □

Marvin K. Margo M.D.

Fiberoptic Endoscopic Retrieval of Swallowed Intragastric Foreign Objects

W. J. GRIFFITHS, MD
ASSISTANT PROFESSOR OF MEDICINE
University of Oklahoma Health Sciences Center

P. C. BIRD, MD
PRIVATE PRACTICE
Norman

I. ZANTOUT, MD
PRIVATE PRACTICE
Oklahoma City

J. LEE, MD
PRIVATE PRACTICE
Stillwater

D. A. NEUMANN, MD
CLINICAL ASSISTANT PROFESSOR
University of Oklahoma Health Sciences Center

Although fiberoptic endoscopes were not designed for such purposes, they provide safe effective approach to the retrieval of swallowed objects.

It has been estimated¹ that 1,500 Americans perish annually from the ingestion of foreign bodies. Children commonly swallow such objects accidentally. In adults, ingestion is sometimes accidental or is a suicide gesture, but it is more frequently seen in prisoners or mental patients, many of whom are chronic compulsive swallowers. Most of the swallowed

objects, even those of unusual size or shape, will successfully pass through the gastrointestinal tract without intervention.² Impairment of this progression, when it occurs, is usually at the site of anatomic or physiologic sphincters, the gastroesophageal junction, the pylorus, the ileocecal valve or in areas with specific bends or curves that must be negotiated, such as the duodenal sweep or rectosigmoid. The traditional approach to large, impacted or symptomatic foreign bodies, as well as those that do not pass, has been surgical removal or removal through the rigid endoscope. The increasing use of fiberoptic endoscopes has, however, provided an alternative method for the removal of a wide range of objects from most patients, particularly those at risk for surgical procedures. Unfortunately, objects to be retrieved are usually larger than the diameter of the biopsy channel within fiberscopes currently in use, and cannot be extracted merely by pulling them out through the instrument. Once grasped, the trailing foreign body must be removed together with the endoscope. Initially, a few small objects were retrieved using the currently available biopsy forceps,^{3,4} but these forceps are too small and too weak to hold larger or irregular objects. The development of multiple accessories such as grasping forceps and wire polypectomy snares has widened the range of objects that can be recovered. Several papers have reported the endoscopic recovery of single, mostly small, swallowed objects using grasping forceps^{5,6} or the wire snare.^{7,8,9} The following report describes the endoscopic retrieval of multiple foreign objects, some of them quite large, from the stomachs of two patients considered to be poor surgical risks.

¹From the Department of Medicine, The University of Oklahoma Health Sciences Center, Oklahoma City, Oklahoma.

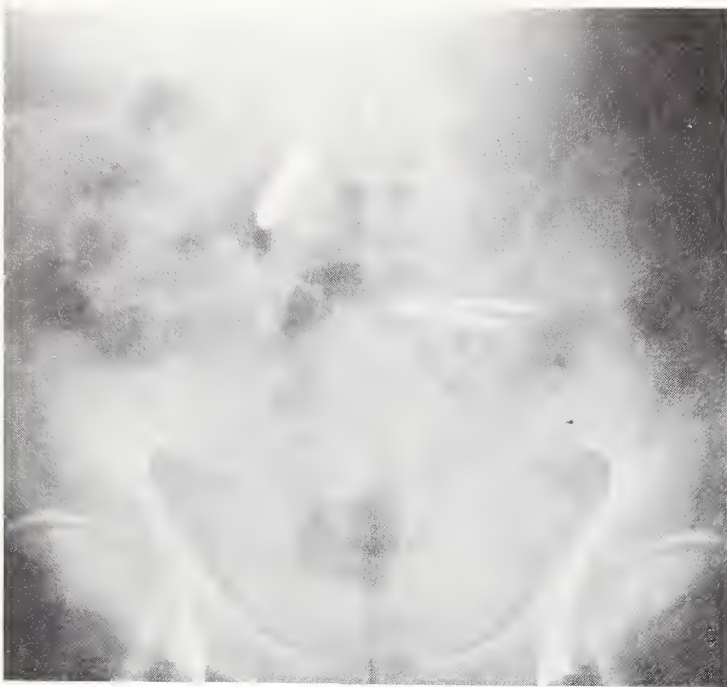


Figure 1.
X-ray of coins in the stomach

REPORT OF CASES

CASE 1

A 67-year-old mental patient with severe chronic obstructive pulmonary disease (COPD) swallowed two quarters and a half dollar. X-rays demonstrated the coins in the stomach. An approach of watchful waiting was adopted, and the patient was examined periodically, hoping the coins would pass, but three months later the coins were still in the stomach, and the patient complained of vague epigastric pain with occasional bilious vomiting. Removal of the coins through a gastrotomy was considered, but the patient's COPD made him a poor surgical risk and he was referred for attempted removal with the fiberoptic endoscope. An x-ray of the abdomen (Fig 1) taken immediately before the attempted retrieval showed the coins still in the stomach. With the patient's informed consent, and following lidocaine gargle and intravenous diazepam, an Olympus GIF-D3 fiberoptic panendoscope was introduced into the esophagus and advanced into the stomach. Three coins were visualized lying stacked together along the greater curvature. An Olympus rat-tooth grasping forceps was passed through the biopsy channel and the edge of the half dollar grasped. With the coin held snug against the endoscope hood, and under direct vision, the endoscope was pulled back to the gastroesophageal (EG)



Figure 2.
Coins removed from Case 1

junction. The patient was asked to swallow, and the instrument, forceps, and coin were withdrawn into the esophagus and out through the mouth. The endoscope was then reintroduced and the two quarters removed, one at a time, in a similar manner.(Fig 2) No complications were observed, and the patient was returned to the psychiatric hospital in good condition.

CASE 2

A 37-year-old prison inmate, a habitual swallower with a history of multiple gastrotomies for swallowed foreign objects, ingested two ballpoint pens, one felt-tip pen, and an earring. X-rays demonstrated the objects in the stomach, and he was referred for surgical removal. Because of his multiple previous abdominal surgical procedures, gastrotomy was considered to be technically difficult and retrieval was attempted with the fiberoptic endoscope. An abdominal film taken immediately before the planned retrieval showed the objects in the stomach.(Fig 3) With the patient's informed consent, and following lidocaine gargle and intravenous diazepam, the Olympus panendoscope was introduced into the esophagus and advanced into the stomach. Three pens without caps or clips were visualized lying lengthwise, with their points projecting upward into the cardia. Since these objects could not be grasped with forceps, an Olympus wire snare was introduced, and, under direct vision, one of the pens was snared near its proximal end. Attempts to bring the pen tip to the endoscope hood or into the



Figure 3.

X-ray of pens and earring in the stomach of Case 2

esophagus were unsuccessful, resulting in the pen slipping from the snare or approaching the EG junction crosswise. Finally, again under direct vision, the pen was manipulated at the end of the snare until it could be brought through the EG junction lengthwise. The endoscope, with the snared pen following closely, was gradually withdrawn until the end of the pen appeared in the posterior pharynx. The patient's neck was hyperextended, and the object was grasped with forceps by an assistant and removed through the mouth. Several days later, the remaining two pens were retrieved, one at a time, in a similar manner.(Fig. 4) The earring was easily recovered by holding it with the rat-tooth grasping forceps, pulling it snug against the endoscope hood, and withdrawing endoscope, forceps, and earring together. Some three weeks later this patient returned, having swallowed eleven small paint brushes, two 15-cm-pieces of wire, and a pencil, all of which were in the stomach.(Fig 5) One at a time, over a period of two weeks, these objects were removed with grasping forceps or the wire snare.(Fig 6) In contrast to the pens, it was possible to bring the proximal ends of the

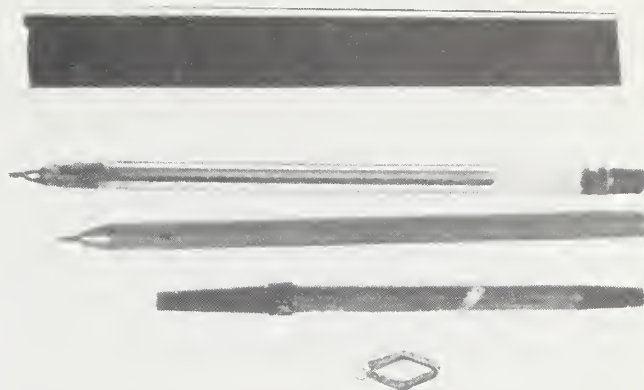


Figure 4.

Pens and earring removed from Case 2

brushes partially under the hood of the endoscope, then simultaneously withdraw the instrument and the attached object. The patient tolerated these multiple retrievals without difficulty and was returned to prison in good condition.



Figure 5.

Paint brushes, wire and pencil in the stomach of Case 2

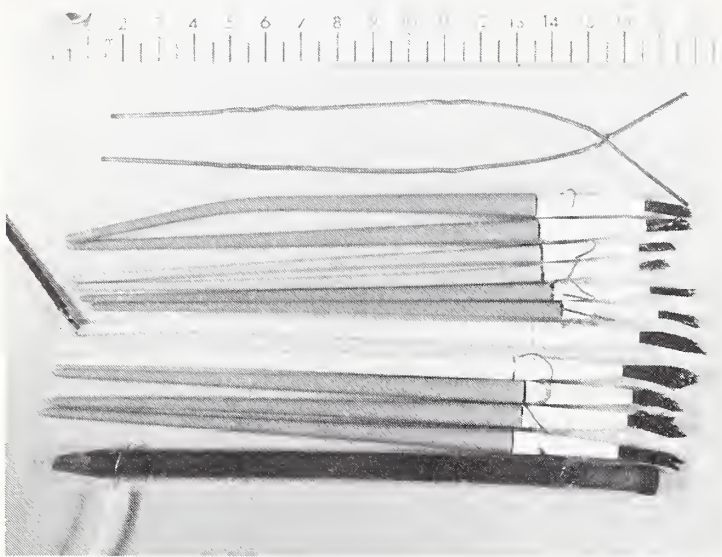


Figure 6.
Paint brushes, wire and pencil removed from Case 2

DISCUSSION

Ingested foreign objects are problems frequently confronting practitioners, particularly those dealing with children or large groups of mental patients or prisoners. Food items, such as fruit pits, uncooked beans, unshelled nuts and bones, are the most commonly swallowed foreign bodies,¹⁰ and many such objects are doubtless swallowed unnoticed and pass undetected. Patients with dental plates are particularly prone to unintentional ingestion, perhaps because of decreased palate sensitivity. Most swallowed foreign objects, even "dangerous" objects, such as razor blades and open safety pins, will negotiate the gastrointestinal tract without incident,^{11,2} presumably aided by the "mural withdrawal reflex" whereby a sharp object coming in contact with intestinal mucosa initiates reflex relaxation of the intestinal wall.¹ Nonetheless, complications, usually perforation or bleeding, are reported in about 12 per cent¹ of cases of known swallowed foreign objects and the outcome of individual cases may be hard to predict. Bones are thought most likely to cause problems,^{11,8} in part because they are frequently swallowed unnoticed and their progress is difficult to follow radiographically. In cases of suspected foreign body ingestion a thorough examination including radiographic studies will usually determine if ingestion has actually taken place and the location of the object. The great majority of objects that reach the stomach pass successfully through the gastrointestinal tract.^{12,13,8} If asymptomatic, such patients

should be watched carefully for signs of bleeding or perforation and progression of the object followed radiographically. A high fiber diet has been suggested on empiric grounds.¹² Signs of perforation are obvious when generalized peritonitis is present, but they may be quite subtle when perforation is gradual, allowing time for abscess formation. Swallowed objects that are large, impacted, symptomatic, or those that remain in the esophagus or do not pass with prolonged observation should be removed. Approaches to the extraction of such objects have included surgery, removal through rigid endoscopes, or more exotic methods such as intragastric magnets¹⁴ and grasping forceps controlled radiologically.¹⁵ X-ray studies should be repeated immediately before proceeding to remove foreign objects with any method. Some objects will be found to have passed or changed location at the last minute. Surgery, relatively safe for most patients, is associated with increased morbidity and mortality in adults likely to swallow foreign objects, particularly elderly mental patients with associated chronic diseases, and compulsive swallowers with multiple previous abdominal procedures. Rigid endoscopes, such as the Jackson or Eder Hufford, are effective but dangerous, associated with a high incidence of posterior pharyngeal or upper esophageal perforation.¹⁶ Intragastric magnets and other radiologically-guided devices have been less frequently used and have the distinct disadvantage of not permitting direct vision.

Although they were designed primarily for diagnostic purposes, fiberoptic endoscopes and their multiple accessories represent the best instruments for foreign body retrieval from most patients. When using the fiberoptic endoscope, as described in the preceding two cases, the instrument is introduced and advanced to visualize the object. Assessment of the best accessory for retrieval, if not made earlier with simulated attempts on similar objects, can then be made. Small objects are grasped or snared under direct vision and withdrawn slowly until the object is snug against the endoscope hood. The fiberscope, with attached foreign body, is then withdrawn carefully, under direct vision, as a single entity. If the object is being removed from the stomach, crossing the EG junction is facilitated by asking the patient to swallow as the foreign body approaches this area. Longer objects, such

as the pens and pencil described in the second case, that cannot be brought against or partially under the endoscope hood are more difficult to remove. They may be removed by manipulating them with the snare or forceps at a short distance from the instrument. In this manner, intragastric objects may be brought through the EG junction, up the esophagus and out through the mouth. Alternatively, a short piece of plastic tubing affixed to the endoscope hood may be useful in promoting easier removal of such objects. The proximal end of the snared or grasped object can be pulled up inside the tubing, allowing withdrawal of the endoscope and trailing object together in the manner described for small objects. It is also important, when long objects are being retrieved, to have an assistant ready to hyperextend the neck and guide tape-covered forceps through the posterior pharynx and assist in the final stage of removal. The great advantage of foreign body removal by fiberoptic methods is that surgery can be avoided; especially important in a group of adults who are at risk for surgical procedures. Further, endoscopy is safe and usually effective. A wide variety of swallowed objects, as demonstrated by these cases as well as others in the literature, can be retrieved with the variety of forceps and snares available. Complications associated with upper gastrointestinal endoscopy are low, with a recently reported overall complication rate of 1.3/1,000.¹⁷ It must not, however, be assumed that the removal of ingested foreign bodies with the fiberoptic endoscope is without some risk. There is a hazard of perforation or impalement by most objects the endoscopist attempts to retrieve. However, since direct vision is permitted, this risk is minimized and can be reduced further with an experienced operator and a cooperative patient. Uncooperative patients can make this procedure too risky, particularly those who have swallowed larger objects. There are other situations where fiberoptic instruments are not useful. Objects too large, heavy, or of such a shape that cannot be grasped or snared, must be recovered by other methods. In the future, therapeutic endoscopes with their large biopsy channels and oversize accessories will extend the range of objects that can be recovered. Likewise, objects out of range of the endoscope, *ie*, in the jejunum, are obviously not appropriate for endoscopic retrieval. The question of how many times a fiberscope can be passed during one procedure without significantly

increasing the risk of perforation is unanswered. The risk of perforation with a single passage is quite low, about .3/1,000 cases.¹⁷ Respecting this recent warning,¹⁸ even with several introductions the risk of perforation with fiberoptic instruments appears to remain low. More than three or four passages at one time are, however, to be avoided, both for safety and for patient comfort. Thus, although the fiberoptic endoscope was not designed for such purposes, it provides a safe, effective approach to the retrieval of swallowed foreign objects.

SUMMARY

The majority of swallowed foreign objects will pass uneventfully through the gastrointestinal tract. In the past, large objects or those that did not pass were removed surgically or through the rigid endoscope. Today's fiberoptic instruments and their multiple accessories, particularly the grasping forceps and wire snares, provide a safe, effective alternative for the recovery of most of these objects. This report describes the retrieval with the fiberoptic endoscope of multiple intragastric foreign objects from two patients.

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William J. Griffiths, MD, P.O. Box 26901
Oklahoma City, Oklahoma 73190.

Diagnosing Gonococcal Urethritis in Males: Experience in an Oklahoma Venereal Disease Clinic

PATRICK ROBINSON, MD

Center for Disease Control, Atlanta, Georgia.

MERLE CARTER, MD

Private Practice, Baptist Hospital, Oklahoma City

NICKEY KNUTSON, MD

GI Section, Department of Medicine, University of Oklahoma Health Sciences Center

HAROLD G. MUCHMORE, MD

Infectious Disease Section, Department of Medicine, University of Oklahoma Health Sciences Center

NED NICHOLS, MD

Infectious Disease Section, Department of Medicine, University of Oklahoma Health Sciences Center

KAREN HRBACEK, BS

Medical Technician, Oklahoma City-County Health Department

JOSEPH POTTER, MD

Private Practice

We found that combining history and physical examination with gram staining of discharge was a reliable and inexpensive method to identify gonococcal urethritis.

INTRODUCTION

Gonorrhea, a venereally transmitted disease caused by *Neisseria gonorrhoeae*, is a public health problem of major and increasing

importance. In 1976, more than one million cases of gonorrhea were reported in the United States.¹ In 1977, 12,297 cases were reported in Oklahoma,² and this is certainly only the tip of the iceberg. Since diagnosis is the necessary prelude to treatment, the ability of the physician to diagnose this disease easily and reliably is of vital concern to both the individual patient and the community.

Various modalities can be valuable in diagnosing genital gonococcal disease. Clinical features, gram stains, and cultures are most commonly used.³ However, each of these is not necessarily equivalent to the others in specificity or sensitivity of diagnosis. Deciding which is the "best" for diagnosing gonorrhea involves evaluating the sensitivity and the accuracy of each modality and considering the cost of each to the patient and the public. In this study we examined several parameters used in the clinical diagnosis of male gonococcal urethritis in a public health venereal disease clinic in Oklahoma.

METHODS

The patient population was drawn from males presenting to the venereal disease clinic of a city-county health department in a large Oklahoma city. One hundred thirty-two consecutive males were examined regardless of reason for presentation. A venereal disease-directed history and physical examination were done on each subject along with appropriate laboratory tests.

The examining physician recorded the patient's history and evaluated the discharge. Amount of discharge was recorded as "copious," "moderate," "minimal" or "absent";

From the Infectious Disease Section, Department of Medicine, University of Oklahoma.

character was described as "mucoid," "purulent," or "mucopurulent." Culture and gram stain material was obtained by cotton swab from each patient. If there was substantial discharge, this was obtained from the penile meatus with a swab and immediately smeared onto a glass slide for gram staining. The swab was then streaked on Thayer-Martin medium with a 5% CO₂ atmosphere. (Transgrow® by Granite Diagnostic Inc., Burlington, North Carolina). If the discharge was scanty or absent, an intraurethral sample was taken by swabbing inside the urethra to at least two centimeters above the meatal opening. The slide was gram stained and examined immediately for polymorphonuclear cells and bacteria. The slide was considered to be "positive" if it had gram-negative diplococci typical of *N. gonorrhoeae* located within polymorphonuclear cells. The urethral cultures were sent to the Oklahoma State Laboratory for screening. Upon growth of an organism in the culture bottle, an oxidase test was done. If this was positive, the cultured organism was gram stained. Typical gram-negative diplococci which were oxidase positive were interpreted as *N. gonorrhoeae*. Organisms from sites other than the urethra were further identified by sugar fermentation.

RESULTS

Of the 132 male patients seen in the venereal disease clinic, 47 (36%), had positive urethral cultures for *N. gonorrhoeae*. Eighty-five patients had negative cultures. One patient had a positive rectal culture, but because of a negative urethral culture and gram stain, he was considered as not having gonococcal urethritis and was tabulated in the non-gonorrhea group. Among the various clinical diagnoses in this patient group were non-gonococcal urethritis, Herpes genitalis, lymphogranuloma venereum, and orchitis of uncertain etiology. Some patients presented to the clinic as possible venereal disease contacts.

An adequate history was recorded in 14 culture-positive and 28 culture-negative patients. (Table I) None of the culture-positive patients was asymptomatic, and all 14 of them complained of a urethral discharge at time of examination. Eleven of 14 (79%) also noted dysuria. Thirteen (46%) of the 28 culture-negative males had no urethritis symptoms. Of the 15 symptomatic culture-negative males, 11

TABLE 1
CLINICAL FEATURES OF PATIENTS

	Culture Positive	Culture Negative
I. History*		
A. Symptomatic	14	15
Asymptomatic	0	13
B. Discharge	14	11
No discharge	0	17
C. Dysuria	11	10
No dysuria	3	18
II. Examination of Discharge		
A. Discharge present**	36	33
Discharge absent	1	39
B. Copious or moderate**	29	11
Minimal	7	22
Absent	1	39
C. Purulent***	39	13
Mucopurulent	4	10
Mucoid	2	15
Absent	1	39

*Recorded in 14 culture-positive and 28 culture-negative patients.
**Recorded in 37 culture-positive and 72 culture-negative patients.
***Recorded in 45 culture-positive and 77 culture-negative patients.

complained of a discharge, and 10 complained of dysuria.

On examination only one of the patients with gonorrhea was noted to have no discharge (Table 1). A moderate or a copious amount of discharge was noted in 29 of 37 culture-positive patients (78%) and a small amount in 7 (19%). The amount was not recorded in 10. Of the 72 culture-negative patients in whom the amount of discharge was recorded, 39 (54%) had no discharge, 22 (30%) had a small discharge, and only 11 (15%) had a moderate or a large amount.

In 46 of the culture-positive subjects, 39 (87%) had a purulent discharge when examined grossly. Four patients (9%) had a mucopurulent discharge, and two patients (4%) had a mucoid discharge. One patient had no discharge. Of the recorded discharges in the non-gonorrhea patients (38), 15 (39%) were mucoid, 13 (34%) were purulent, and 10 (26%) were mucopurulent. In 39 additional patients there was no discharge.

TABLE II
URETHRAL SMEARS OF 132 PATIENTS

	Culture Positive (%)	Culture Negative (%)
Positive smear	44 (94%)	3 (4%)
Negative smear	3 (6%)	82 (96%)
Total	47	85

All 132 patients had gram stains of urethral smears done and these were evaluated by an experienced technician who did not have immediate access to the patient's clinical information. (Table II) Forty-four (94%) of the 47 culture-positive subjects had "positive" gram stains. Each of the three false negative smears had polymorphonuclear cells and two of them had bacteria that did not appear to be *Neisseria*. None of these patients admitted receiving any prior antibiotic therapy. Pending the culture report, they were diagnosed as having non-gonococcal urethritis and treated with oral tetracycline. Of 85 culture-negative patients 82 (96%) had "negative" gram stains and three (4%) had positive smears. Many of the negative smears had white blood cells and/or bacteria not resembling *Neisseria*. None of the three patients with false positive gram stains had received antibiotics, and their clinical presentation included discharges of various amounts and purulence.

DISCUSSION

Although gonorrhea is a major contributor to the venereal disease problem, it is not the only disease seen in clinics by physicians who deal with venereal diseases. In our series, slightly more than a third of the males we saw had gonococcal urethritis. This is similar to the frequency noted by other investigators. Schroeter and Pazin found that about 32% of women screened at venereal disease clinics were discovered to have gonorrhea.⁴ In males presenting to a venereal disease clinic, Jacobs and Kraus were able to culture *N. gonorrhoeae* from 46% of those with symptoms of urethritis.³ Our yield was probably lower because we cultured all males regardless of symptoms. In other populations, screening

cultures have turned up variable but smaller percentages of subjects with positive cultures. In screening studies, hospital outpatient clinics have found about 5% of their clientele have gonorrhea; up to 2% of female patients seen by private physicians may have positive cultures;⁴ and Handsfield, *et al.*, discovered a 2.2% prevalence rate in 2,628 sexually active military men.⁵

Although 31% of our 42 subjects in whom a history was recorded were asymptomatic, none of our patients infected with *N. gonorrhoeae* was asymptomatic. Our absence of asymptomatic males contrasts with the experience of both Handsfield *et al.*⁵ and Pariser⁶ who found a considerable number of asymptomatic males with culture-positive gonorrheal urethritis. One possible reason for the greater sensitivity of our histories may be that each patient was interviewed two to three times before the definitive history was taken by the physician. This may have given the patient additional opportunity to consider closely any possible symptoms and make it less likely to overlook minor symptoms.

The presence of symptoms is a very sensitive, though not specific, indicator for predicting the presence of gonococcal urethritis. Our experience suggests that a history of discharge should be very sensitive in finding cases in a venereal disease clinic since it was present in all of our patients with gonococcal urethritis. Unfortunately, there was a 44% false-positive rate, suggesting a lack of specificity. The complaint of dysuria was present in 79% of males with gonococcal urethritis, but was also present in 48% of males without gonococcal urethritis. Therefore this symptom is a less sensitive indicator with a slightly higher rate of false positivity than is that of a discharge.

We found that examination for presence of discharge is also a very sensitive way to discover gonococcal urethritis. Ninety-seven percent of our culture positive patients had a discernable discharge. However, the rate of false-positives was high—50% of the culture negative subjects also had a discharge. Subjects with gonococcal disease were more likely to have moderate or copious discharges, but categorizing the discharge according to amount did not increase the specificity of the examination for identifying non-gonococcal disease.

The appearance of the discharge did seem to

correlate a little better with the presence or absence of gonococcal disease. Only 25% of the patients with a purulent discharge had negative cultures for *N. gonorrhea* (false-positive rate of 25%), and only 22% of patients with a mucoid or mucopurulent discharge had positive cultures (false-negative rate of 22%). The above results indicate that the patient's history and physical findings are very sensitive and will find nearly all cases of male urethritis due to the gonococcus. However, there will be many cases *not* caused by the gonococcus having findings similar to a gonococcal-caused urethritis.

Duration of symptoms has been mentioned as being of help in differentiating the various types of urethritis. Patients with dysuria of short duration, *ie*, one to four days, will be more likely to have gonorrhea.³ This has been our clinical impression, but this information is not available from our study.

Our study indicates that the gram stain is a highly specific modality for differentiating culture-positive and culture-negative patients. Only about 4% of patients with negative smears had positive cultures, whereas only about 6% of patients with positive smears had negative cultures. Looking at the data another way, 94% of patients with gonococcal disease had positive smears, and 96% of patients without gonococcal disease had negative smears. This is comparable to the 98% sensitivity and the 98% specificity noted by Jacobs and Kraus.³ It was interesting to note that none of our smears was equivocal, although many negative smears did contain only white blood cells or only non-gonococcal-like bacteria.

Three patients had positive cultures and negative gram stains. It is possible that these gram stains contained a scant number of *Neisseria*, but they were not seen because of the pink color of the bacteria on the pink background of the white blood cells. Another three patients had negative cultures but positive gram stains. If these culture-negative, positive smears represent gonococcal disease, it may indicate that our cultures were no more sensitive than our smears in diagnosing the gonorrhea. There are several confounding factors which need to be considered, however. Although all of our subjects denied antibiotic use for at least one week before visiting the clinic, it is possible that some of them took antibiotics unknowingly or illicitly. Occasion-

ally coccobacilliary gram-negative bacilli which are not *Neisseria* may be found in the male genital tract, and it is possible that these were wrongly labeled as gonococcus. Either of these reasons may explain the negative cultures with positive smears. An additional problem in evaluating these results is the fact that even culturing for gonorrhea is not 100% accurate. Several other groups have noted between a 91% and 93% culture yield when comparing Thayer-Martin media to other culture media.^{7, 8} This may suggest that the gram stain is as sensitive as the urethral culture alone.

COST OF DIAGNOSIS

One additional factor to consider when judging the efficiency of these various modalities is cost. When one considers that in 1977 the Oklahoma State Health Department received approximately 70,000 gonorrhea cultures,⁹ one can see that even small differences in cost of methods of diagnosis will be magnified because of the large volume handled by the public health sector. The cost of diagnosis to an individual patient should also be considered.

To calculate the approximate cost differential, we have assumed that all patients seen at our clinic will receive an equivalent history and physical examination. The additional time

TABLE III
COST TO THE PUBLIC HEALTH SECTOR FOR
LABORATORY DIAGNOSIS OF MALE
GONOCOCCAL URETHRITIS*

	Cost/per/pt.
I. Gram stain of urethral discharge	
1. Technician time (3 min.)	\$.31
2. Physician time (1 min.)	.50
3. Stain & microscope slides (negligible)	
Total81
II. Gram stain plus culture of discharge	
1. Technician time (4 min.)	.41
2. Physician time (1.5 min.)	.75
3. Culture by State Laboratory	1.14
a. Media	.22
Technician time	
reporting costs	.92
Total	\$2.30

*Does not include overhead or initial capital outlay

consumed for a gram stain alone would be approximately three minutes of technician time and one minute of physician time. If a culture and a gram stain were done, the technician (at our clinic) would spend a total of about four minutes per patient and the physician, about 1.5 minutes per patient. The cost to the State of Oklahoma of the culture is \$1.14 per culture (excluding overhead and initial capital outlay). This includes the cost of the medium (\$0.22), technician time, and distribution of test results. The cost of materials for a gram stain is negligible. Therefore, the increased cost per patient in our public health clinic is \$0.81 if only a gram stain is done in addition to the history and physical. The cost for a culture plus a gram stain is \$2.30. (See Table III) These costs apply only to our large-volume clinic, however. They would probably be somewhat larger in a setting where fewer males with venereal disease are seen, such as a private physician's office.

CONCLUSION

Our data indicates that in a venereal disease

clinic, suggestive symptoms and the presence of a discharge are likely to discover nearly all male patients with gonococcal urethritis but are not very specific for making a diagnosis. A gram stain of a urethral smear is a specific method for deciding which patients have gonococcal disease and which do not. It is less costly and about as sensitive as culturing.

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Patrick Robinson, MD, c/o Viral Disease Branch,
Center for Disease Control, 1600 Clifton Road,
Atlanta, Georgia 30333.

Techniques in the Application of Cervical Traction:

A Review of Research Findings

FRED G. DELACERDA, PHD

Cervical traction is prescribed for a number of clinical entities with symptoms related to nerve root compression, degenerative joint disease, and soft tissue injuries. Generally this treatment is an empirical form of therapy complicated by numerous application variables, although data are available to clarify those techniques needed for proper utilization of cervical traction.

Cervical traction is frequently used as a therapeutic tool in the treatment of various cervical syndromes. However, despite this frequent utilization, there exists considerable difference in opinion regarding the effectiveness of this treatment modality. Evaluation of treatment effectiveness is complicated by variance in application techniques which includes such variables as halter type, traction force, angle of application, duration, frequency, and patient positioning. Presently it seems that clinical experience is the determining factor for selecting those techniques to be utilized in the application of cervical traction.

Research efforts to determine those techniques providing optimum effectiveness have

been hampered by the large number of variables involved in the application of cervical traction. No single investigation can provide the answer as to which is the optimum method for treatment. Therefore, the purpose of this presentation is to review these research studies which have investigated the various factors involved in the application of cervical traction.

REVIEW OF LITERATURE

Purpose of Cervical Traction. Cervical traction is utilized as treatment for cervical syndrome, a term used to designate a group of symptoms resulting from irritation of cervical nerve roots in and about the intervertebral foramina.^{1,2,3} Regardless of the complex pathology associated with cervical syndrome the basic purpose of cervical traction is to enlarge the intervertebral foramina so as to relieve the irritative forces on the nerve roots.^{1,3}

The effectiveness of cervical traction in treating 212 patients with cervical syndrome was investigated.¹ The patients were grouped according to the following symptoms: 1. radiation of pain into the digits; 2. pain radiating into anterior chest; 3. pain radiating into other areas; 4. headache; 5. vertigo; 6. muscle weakness and/or atrophy. Complete cure of all symptoms was found in 19%, marked improvement in 42%, slight improve-

Traction / DELACERDA

ment in 23%, and no improvement in 16% of the patients. The patients in Group 1 had the highest rate of cure (68%), whereas those in Group 4 had the lowest rate of cure (47%). There was, however, a lack of consistency in the study since the type traction used was varied. Also other physical modalities such as massage, diathermy, and ultrasound were varied among the groups.

Cervical traction is also employed for treatment of soft tissue injuries classified as muscle spasm. Although muscle spasm has been defined as a reflex or involuntary muscle contraction due to painful stimuli, experimental efforts to produce muscle spasm have been futile.^{4,5} Nonetheless, the use of traction to relieve cervical muscle spasm has been advocated despite the fact that research investigation of the effects of traction on muscle spasm seems to be lacking.³

Intermittent versus Continuous Traction. Cervical traction may be used as either continuous traction or intermittent traction. Continuous traction allows a certain degree of immobilization of the head and cervical spine but frequently patients experience discomfort particularly due to pressure on the chin. Intermittent traction allows maximum traction force with minimum discomfort to the patient. Since intermittent traction has alternate cycles of stretch, hold and relax phases it has been reported to reduce edema, promote circulation, prevent adhesions and relieve muscle spasm.³ Research data, however does not appear to be available in support of these claims.

A comparative study of the effect of intermittent and continuous traction on elongation of the cervical spine showed that intermittent traction resulted in approximately twice the spinal elongation as that produced by continuous traction.² An investigation of different types of traction used for treatment of cervical syndrome found continuous traction gave the better results; however, the experimental design failed to equally distribute the types of traction among the various symptoms defined as cervical syndromes. It was concluded that early physical therapy treatment rather than either the use or the type of cervical traction was the important factor.²

Sitting versus Supine Positioning. Patients

may be positioned in either the supine or the sitting position for application of cervical traction. Several investigators share the opinion that the patient was more relaxed and less tense when given cervical traction in the supine position.⁷⁻¹⁰ The supine position allowed better patient stability so that deviation from proper alignment with the traction apparatus was less likely to occur.¹⁰

A comparative study of sitting and supine positions supported the use of supine positioning for cervical traction. With the sitting position there was a decrease in intervertebral separation. It was suggested that the weight of the head and muscle tension to guard against instability caused this decrease. It was also noted that the anterior anatomical cervical curve decreased in the supine position due to the force of gravity on the cervical spine. This resulted in an increased separation of posterior intervertebral spaces.¹⁰

Crue treated twenty patients with supine traction after treatment with sitting traction failed to relieve the symptoms of cervical syndrome. Roentgenograms revealed greater intervertebral separation with the supine position. In view of this finding it was not unexpected that patients expressed greater relief from cervical symptoms with the supine position.⁸

Angle of Application. The angle formed by direction of traction pull and longitudinal axis of the body appears to be an important factor in cervical traction. It has been assumed that variations in angle of traction force application affects the separation of cervical vertebrae.

Crue has recommended that the angle of traction application be 45 to 60 degrees since this maintained 30 degrees of cervical flexion.^{11,12} It must be noted that halter structure can influence this 45 to 60 degree angle. Thus, it seems that cervical flexion angle is of greater significance than solely traction angle since traction angle is related to the type halter used.

Having found that cervical flexion without traction separated the cervical vertebrae posteriorly,¹³ Colachis and Stohm investigated

Fred G. DeLacerda, PhD, received his degree in Exercise Physiology from Louisiana State University and is now a candidate for a degree in Biomedical Engineering at Oklahoma State University, where he is assistant professor in the Department of Health.

the effect of angle of pull on cervical vertebral interspaces.¹⁴ Eleven normal subjects were given supine cervical traction with angles of pull varying from 0 to 35 degrees measured from the horizontal. The degree of posterior vertebral elongation was related to angle of pull with the greater elongation associated with increased cervical flexion. The greatest vertebral elongation was found at an angle of 24 degrees traction pull.

In a study of cervical motion it was found that intervertebral motion from the hyperextended to the fully flexed position was in an anterior-posterior ratio of 2:1.¹³ Therefore, flexion of the cervical spine caused twice the anterior compression as posterior elongation. Traction, however, was found to produce posterior elongation with negligible changes anteriorly.¹⁴

In a study of cadavers hyperextension of the cervical spine compressed the ligamentum flava producing bulges which protruded into the spinal canal.¹⁵ This is insignificant for a normal spine but with the presence of osteophytes there is a possibility of nerve root and cord compression. In this case cervical flexion becomes an important consideration in application of cervical traction.

No conclusive evidence exists as to the exact site of maximum vertebral separation when the cervical spine is subjected to traction. However, research studies have found the greatest intervertebral separation to occur in the area of C4 to C7.^{3,16-18} The least amount of separation was noted at the C2-C3 and C7-T1 interspaces.¹⁸

Amount of Traction Force. It has been recommended that 5-to-10 pounds of traction force be used for cervical traction.^{11,12} A force of this magnitude was reported to have good patient tolerance for prolonged time periods, but such treatment required hospitalization. Out-patient treatment allowed the use of a greater force applied for a shorter time period.

Judovich¹⁹ determined that 20 pounds of traction force applied in a sitting position was sufficient to straighten the cervical spine. At least 25 pounds of traction was necessary to produce a measurable posterior separation in the cervical spine between C2 and C7. In some cases patients found an increase in pain with forces up to 25 pounds, but a relief in pain at 25 to 35 pounds. It was concluded that separation of vertebrae coincided with relief of pain.

A definite relationship was found between

vertebral separation and amount of traction force applied in the supine position.¹⁴ A traction of 30 pounds was sufficient to produce posterior separation of the vertebrae. Although traction force was a significant factor in posterior separation it was less specific for anterior separation. Vertebral separation increased with traction force; however, another study found that voluntary contraction of cervical muscle was sufficient to overcome the effect of up to 55 pounds of traction force.²⁰

Application Time. It has been generally accepted that large traction forces can be tolerated only for short time periods, whereas lesser forces can be tolerated for longer time intervals.^{19,21} The duration of cervical traction is highly variable but time has added importance in intermittent traction since the contract phase of a traction cycle can be varied.

The relationship of traction time to a varied force with a constant angle of pull was investigated by Colachis and Strohm.²¹ In this study, traction forces of 30 and 50 pounds were given for 7, 30 and 60 seconds at an angle of 24 degrees. As previously reported, a positive relationship existed for intervertebral separation with respect to traction force.¹⁴ The amount of intervertebral separation was not influenced by application time. A traction force of 30 pounds for seven seconds at 24 degrees produced vertebral separation.^{14,21}

To determine the effect of 25 minutes of intermittent traction on vertebral separation a traction force of 30 pounds was applied at an angle of 24 degrees with a contraction time of seven seconds. Results showed that the mean vertebral separation both anteriorly and posteriorly increased at a proportionate rate, reaching a maximum level at 25 minutes. Twenty minutes after cessation of traction only the anterior residual separation was significant. It was suggested that the relative inelastic nature of the anterior structures as compared to the posterior structures accounted for this finding.¹⁸

Precautions. The temporomandibular joint is normally subjected to forces arising solely from muscle contraction; however, when subjected to cervical traction this joint becomes weight-bearing. The force of cervical traction is transmitted through the chin portion of the halter to the maxillary bone via the teeth and to the temporomandibular joint. Abnormal dental occlusions increase the stress placed on this joint.^{21,22}

Cases of temporomandibular joint dysfunction associated with cervical traction have been reported. It has been suggested that caution be exercised when utilizing cervical traction on the elderly, persons with abnormal dental occlusions and those persons predisposed to osteoarthritic changes.^{21,22} A bite-splint has been advocated where dental malocclusions exists due to missing posterior teeth.²²

Lacking both a pathological identification of fibromyositis and a neurophysiological theory to explain muscle spasm, Weinberger²⁴ has expressed the opinion that traction may be traumatic when used to treat cervical soft tissue injuries. While there is no evidence to support this opinion, research data are also lacking in support of the use of traction in treatment of soft tissue injuries.

CONCLUSIONS

Cervical traction is prescribed for a number of clinical entities with symptoms related to nerve root compression, degenerative joint disease, and soft tissue injuries.²⁶ Generally this treatment is an empirical form of therapy complicated by numerous application variables. Despite this confusion research data are available to clarify those techniques needed for proper utilization of cervical traction.

Based on the research data cited in this presentation the following conclusions concerning techniques of cervical traction can be stated:

1. Intermittent traction is superior to continuous traction in producing elongation of the cervical spine. The claims that intermittent traction prevents adhesions and promotes circulation are not supported by research findings.

2. Traction applied to subjects in a supine position is superior to that applied to subjects in the sitting position. This position places the head in a gravity-eliminated position so that greater intervertebral separation occurs. In addition to being more comfortable for the patient, this position provides for better patient-traction alignment.

3. Traction applied to a flexed cervical spine produces posterior elongation of the vertebrae with negligible anterior compression. Flexion of 24 degrees appears to be the optimum position.

4. Vertebral separation increases with

traction force; however, 30 pounds is sufficient to produce separation. A traction force of 30 pounds for seven seconds produces significant vertebral separation.

5. Intermittent traction of 30 pounds applied at 24 degrees with a contraction phase of seven seconds for 25 minutes duration produces significant vertebral separation with residual elongation for 20 minutes after cessation of traction.

6. Temporomandibular joint dysfunction can result from the use of cervical traction, particularly in patients with abnormal dental occlusion.

7. Cervical traction utilized with other therapy modalities relieves symptoms found in cervical syndrome, but the effectiveness of traction in treatment of cervical soft tissue injuries is in need of further investigation.

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Department of Health, Colvin Center, Oklahoma State University, Stillwater, Oklahoma 74074

National Children's Dental Health Week Announced

One of the very important dental activities early in 1979 was National Children's Dental Health Week. The theme was "Smile America" and this year there will be an additional emphasis on nutrition. We all know that dental education should take place throughout the entire year, however, this was a week set aside for special emphasis on children's dental health. Everyone was encouraged to work together for the benefit of the children in Oklahoma and to make a special effort to teach people in their respective communities the importance and necessity of good oral hygiene.

When teaching dental health, one needs to understand that the problem of oral hygiene begins with plaque. Of course plaque is the sticky, colorless substance that constantly forms on everyone's teeth. The bacteria in plaque utilizes sugars to produce harmful acids that attack the tooth enamel and cause decay. This same substance can also irritate the gums, making them tender and likely to bleed. If plaque is not thoroughly removed at least once a day by careful brushing and flossing, plaque will harden into a deposit called calculus. As calculus accumulates, the gums slowly detach from the teeth leaving deep pockets where bacteria and debris continue to col-



News From
The Oklahoma State
Department of
Health

lect, eventually destroying the tissues and bones around the teeth and the teeth themselves.

Most dentists recommend a toothbrush that has a straight handle, a flat brushing surface and soft, end-rounded nylon bristles. Soft bristles are less likely to injure the gingival or gum tissues. In addition, the head of the brush should be small enough to permit easier access to the rear of the mouth and the tongue side of the teeth. Children require smaller brushes than those designed for adults. Also, a toothbrush probably should be replaced about four times a year. A wornout toothbrush can't clean off the plaque and bent bristles can injure your gums. When the bristles become bent or frayed the toothbrush should be replaced.

While toothbrushing will remove some plaque and other debris, a truly effective cleaning job actually requires the combined daily use of a toothbrush and dental floss. By following these simple preventive measures, the incidence of dental disease can be dramatically reduced. □

COMMUNICABLE DISEASES IN OKLAHOMA FOR DECEMBER, 1978

DISEASE	DECEMBER	DECEMBER	NOVEMBER	Total To Date	
	1978	1977	1978	1978	1977
Amebiasis	—	2	3	31	23
Brucellosis	2	—	2	9	3
Chickenpox	—	107	—	—	1071
Encephalitis, Infectious	1	—	—	210	13
Gonorrhea (Use Form ODH-228)	986	1258	1069	13499	13473
Hepatitis, A, B, Unspecified	49	61	41	676	805
Leptospirosis	—	1	—	—	3
Malaria	—	—	1	1	—
Meningococcal Infections	2	1	2	20	16
Meningitis, Aseptic	4	6	6	74	82
Mumps	—	48	—	—	600
Rabies in Animals	22	15	12	194	242
Rheumatic Fever	—	—	—	—	3
Rocky Mountain Spotted Fever	—	5	—	54	74
Rubella	—	5	5	18	38
Rubella, Congenital Syndrome	—	—	—	—	—
Rubeola	—	—	4	18	67
Salmonellosis	53	15	49	356	322
Shigellosis	74	18	52	408	91
Syphilis, Infectious (Use Form ODH-228)	5	14	5	106	92
Tetanus	—	—	—	3	1
Tuberculosis, New Active	34	25	33	339	296
Tularemia	3	2	6	14	12
Typhoid Fever	—	—	2	5	2
Whooping Cough	—	—	—	14	16

OSMA Annual Meeting Returns to Tulsa

For the first time in five years the Oklahoma State Medical Association will hold its annual meeting in Tulsa. The 1979 Annual Meeting of OSMA will be held in the new Williams Plaza Hotel, May 3-5. In addition to OSMA activities, the OSMA Auxiliary will hold its meeting at the same time, as will several specialty societies.

Persons appointed by OSMA President Dr Marvin K. Margo to plan the program are Dr Victor L. Robards, Jr., general chairman, Dr E. N. Lubin, Dr Robert G. Perryman, Dr Carl C. Morgan, Dr Raymond L. Cornelison, Jr., Dr Michael Haugh, Dr Roger V. Haglund, Dr Simon A. Levit, Dr William M. Benzing, Jr. and Dr Walter H. Gary.

Ladies activities are under the direction of Mrs. Victor L. Robards, Jr.

Shown below is the scientific program along with OSMA business functions. Social and sports activities as well as some guest speakers still are to be scheduled. Dr Tom E. Nesbitt, President of the American Medical Association, will be the featured speaker at the Friday, May 4, luncheon. Tulsa Mayor James Imhoff will address the opening session of the OSMA House of Delegates on Thursday, May 3.

Full details on the meeting will be featured in the April issue of *The Journal of the Oklahoma State Medical Association*. □

Preliminary Program

Thursday, May 3, 1979

OSMA Executive Committee

OSMA Board of Trustees Meeting & Luncheon

Opening Session, OSMA House of Delegates

Exhibits Open

Coagulopathies

George W. Schnetzer, III, MD, Chairman

Speakers: John A. Penner, MD, Chief, Coagulation Laboratory University of Michigan Hospital, Ann Arbor, Michigan; Fletcher B. Taylor, Jr., MD, Oklahoma City

Dale E. Van Wormer, MD, Tulsa

Update on Antibiotics

Eric L. Westerman, MD, Chairman

Speakers: Ronald Nichols, MD, Associate Professor of Surgery, Chicago Medical School, Chicago, Illinois

Gerald Bodey, MD, Professor of Medicine, M. D. Anderson Hospital & Tumor Institute, Houston, Texas

David Smith, MD, Oklahoma City

Wine and Cheese Reception—Exhibit Area

OU Alumni Reception and Dinner

Friday, May 4, 1979

OSMA Reference Committees

Exhibits Open

Recent Advances in the Management of Cancer

Floyd F. Miller, MD, Chairman

Speakers: George J. Hill, MD, Chairman, Department of Surgery, Marshall University School of Medicine, Huntington, West Virginia

John Horton, MD, Head, Division of Oncology, Albany Medical College, Albany, New York

Morris J. Wizenberg, MD, Oklahoma City

The Physician and the Problems of the Adolescent

Daniel E. Plunket, MD, Chairman

Speakers: William A. Long, Jr., MD, Assistant Professor of Pediatrics, University of Mississippi School of Medicine, Jackson, Mississippi

David Kaplan, MD, Oklahoma City

OSMA Luncheon

Speaker: Tom E. Nesbitt, MD, President, AMA

Sexual Therapy Seminar

Mark A. Kelley, MD, Chairman

Speakers: Domeena Renshaw, MD, Department of Psychiatry, Loyola University Medical Center, Chicago, Illinois

Dermatology for the Non-Dermatologists

Robert F. Bell, MD, Chairman

Speakers: Philip L. Bailin, MD, Department of Dermatology, Cleveland Clinic, Cleveland, Ohio

Lawrence E. Millikan, MD, Associate Professor of Dermatology, University of Michigan Medical School, Ann Arbor, Michigan

Dwane B. Minor, MD, Tulsa

President's Reception

Inaugural Dinner—Dance

Saturday, May 5, 1979

Exhibits Open

Socioeconomic Seminar on Practice Management

E. N. Lubin, MD, Chairman

Speakers: James A. Reynolds, Executive Editor, *Medical Economics*, Oradell, New Jersey

W. Fred Mangan, Professional Management Consultant, Battle Creek, Michigan

Roger Harrison, Professional Management Consultant, Norman, Oklahoma

Closing Session, OSMA House of Delegates

Specialty Society Meetings

Oklahoma Society of Anesthesiology

Oklahoma Academy of Otorhinolaryngology

Oklahoma Allergy Society

Oklahoma Urological Association

Occupational Medicine Association

Oklahoma State Radiology Society

Oklahoma State Dermatology Society

Oklahoma Rheumatism Association

Other Society meetings to be announced. □

Symposium on Leukemia Set for April 20-21

Four physicians and two registered nurses will be guest speakers for a Symposium on Leukemia scheduled next month in Oklahoma.

The symposium will be Friday, April 20 at the Children's Medical Center in Tulsa and Saturday, April 21 at the Baptist Medical Center in Oklahoma City.

Scheduled to appear at the two-day event are the following:

Dr Alvin Mauer, director of the St Jude's Children's Hospital in Memphis, Tennessee; Dr E. J. Freirich, director of the Department of Developmental Therapeutics at the University of Texas System Cancer Center in Houston, Texas; Dr B. J. Kennedy, professor of medicine, director of Medical Oncology and Masonic Professor of Oncology at the University of Minnesota Hospital in Minneapolis, Minnesota; Dr Martin Cline, of the Department of Medicine at the University of California School of Medicine in Los Angeles; Mary Ann Staab, RN, and Shirley Wunder, RN. □

OSMA Council Checks on Government

By Melinda Turner
Publications Specialist

The OSMA Council on Governmental Activities has adopted a watchdog stance as government continues to share the role in health care.

The council successfully thwarted a supposed federal solution to fraud and abuse in clinical laboratories nationwide. Perry Lambird, MD. The federal plan would have closed 20 to 30 Oklahoma rural hospitals.

Armed with facts and an understanding of the rural situation, the OSMA Council went to Congress, where the Clinical Laboratory Improvement Act (CLIA) had come out of the Senate Committee.

"We had only two weeks before it would have been impossible to stop CLIA. We were told from all sides that it was hopeless and to put away our data and go home," Dr Perry Lambird, Oklahoma City pathologist and council chairman, said.

But they did not go home. Instead, Oklahoma slowed the progress of CLIA single-handedly.

The 96th Congress has already presented new challenges for the Council on Governmental Activities, with plans for a hospital cost containment program, national health insurance, a reintroduction of CLIA and Sun and Frost Belt health legislation.

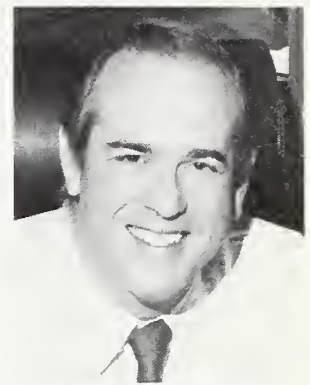
"Our biggest battle concerns inclusion of Sun and Frost Belt in Congressional health care solutions," Dr Lambird said.

While a given health care plan may make sense for the densely populated East, the same program may have an adverse effect on the Sun Belt, Dr Lambird said.

The key to the council's success in getting the federal government to waive potentially adverse legislation is OSMA's Man-in-Washington program, according to Dr Lambird.

OSMA engaged its own lobbyist, John Montgomery, last year to monitor governmental health activities affecting Oklahoma.

Montgomery's role is to help the legislators do their jobs better. He attempts to help them



by showing them what effects proposed laws will have on health care in each Congressman's district.

The rapid response of Congressmen to pending health legislation is due to the communication between Montgomery and the 20-member OSMA Council, according to Dr Lambird.

"We do not foresee the council itself expanding and splitting off into subcommittees, but rather would like to encourage physicians to get politically involved," Dr Lambird said.

Dr Lambird recommended that doctors contribute money and time to the Oklahoma Medical Political Action Committee (OMPAC).

"It all starts on the local level," Dr Lambird stated. "A physician can get involved in political campaigns and become acquainted with the candidates before the physician becomes a constituent." □

Carter Reviews NHI Proposal

It was just a question of time before the Carter administration considered implementation of a national health insurance plan.

Health, Education and Welfare Secretary Joseph Califano has called for a health insurance program which would be implemented in an uncertain number of years beginning in 1983.

The five phases of the Califano plan are:

- Remove Medicare hospital day limit in 1983. Mandate physician acceptance of set rates for the aged and poor. Mandate catastrophic illness coverage for all 25-hour-a-week or more employees, with federal-employer cost sharing.

- Establish federal Health Care plan for persons not covered elsewhere and for some of the poor, with federal aid from general revenue.

- Mandate physician acceptance of set rates for all approved private health insurance plans. Broaden health coverage.

- Merge Medicare and Medicaid (except Medicaid long term care) with Health Care.

- Make Health Care mandatory for anyone who lacks other coverage.

While President Carter conceives a step-by-step adoption of NHI and support from Congress and the American people, the Australian and

British governments are expressing dissatisfaction with their NHI programs.

The Australian government has decided to renege on a major portion of its responsibility for working Australians' medical care.

Economists say the policy shift was a result of difficulty the government had in regulating medical services and in imposing taxes to pay for the services.

The British government may be looking to health rationing to solve its problems. Hospital workers have tried their countrymen's patience with strikes and there is a growing anxiety about rising patient-expectation and consumption of NHI facilities, said Dr James Cameron, of the British Medical Association.

The American Medical Association recently reiterated its position that everyone should have health insurance at adequate benefit levels and that the gaps in the present system affecting some segments of the population need to be filled.

The AMA officials are cognizant of the growing problems facing other nations with government controlled health programs. They contend rising costs of health care and a massive federal program would have an adverse effect on an already overheated segment of the economy.

The AMA Board of Trustees will undertake a comprehensive review of the NHI issue over the next several months. □

Heart Association Recognizes Dr Charles Atkins

Charles N. Atkins, MD, has been named the 1979 winner of the American Heart Association Louis B. Russell Jr. Memorial Award.

An Oklahoma City family physician and member of the OSMA Council on Professional and Public Relations, Dr Atkins received the award for outstanding service in programming for minorities.

Dr Atkins, a member of the American Heart Association, Oklahoma Affiliate for nine years, has served in a number of volunteer leadership offices including president.

The award was named for a black Indianapolis school teacher who received a heart transplant in 1968 and worked to inspire public support of heart association programs until his death in 1974. □

OSMA Classifies Specialties For Insurance Coverage

The Oklahoma State Medical Association can again provide professional liability insurance with optional extended coverage up to \$5 million.

The premium schedule and classification system for the 1979 professional liability program underwritten by The Hartford Insurance Company, offers coverage from \$100,000 to \$5,000,000.

In the classification system, medical specialties are summarized in five groups.

General practice and designated specialties placed in Class 1 do not perform surgery or obstetrical procedures. Specialties include allergy, cardiology, dermatology, emergency medicine, family practice, gastroenterology, internal medicine, pathology, pediatrics, psychiatry and radiology.

Incising boils and superficial fascia, suturing minor lacerations and removal of superficial skin lesions by other than surgical excision are

not defined as surgery by The Hartford program.

Class 2 are specialties enumerated in Class 1 which perform minor surgery or assist in major surgery on their own patients.

Specialties in Class 3 perform or assist in major surgery on other than their own patients. Major surgery includes operations in any body cavity, including but not limited to the cranium, thorax, abdomen or pelvis.

It also includes tonsillectomies, adenoidectomies, abortions, dilation and curettement, cesarean section, removal of tumors, bone fractures, amputations, removal of any gland or organ and plastic surgery.

Included in Class 3 are broncho-esophagoscopy, colon and rectal, endocrinology and ophthalmology.

Class 4 includes general surgery, otorhinolaryngology, thoracic surgery, urology and vascular surgery.

The surgical and medical specialties in Class 5 are anesthesiology, obstetrics, gynecology, neurology, orthopedics, plastic surgery and trauma. □

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Trustees Support Proposed Captive Insurance Company

At the February 3 meeting, the OSMA Board of Trustees voted to submit a resolution to the House of Delegates at the Annual Meeting in May to give the Trustees stand-by authority to start a captive insurance company if it becomes necessary.

Preparations for a private company began after a 32.6 per cent increase was announced for professional liability insurance rates.

In other board action, the members reviewed a report on pending legislation in the Oklahoma House and Senate.

OSMA President Dr Marvin Margo asked the OSMA Legislative Committee to monitor the Podiatry bill modifying education requirements for licensure renewal.

Additionally, wording in Senate Bill 143 was questioned. The bill provides for immunization of children at public expense before admission to day care centers. Immunization is currently available at public expense, said Dr Armond Start.

Trustees were told that authors of the "Death with Dignity" or "Living Will" bill, introduced by Senator William Schuelein, are working with OSMA committee members.

The bill provides for termination of life sustained procedures when a living will is present.

Lyle Kelsey, director of Governmental Activities, reported the introduction of a bill on the House floor authorizing creation of non-profit chiropractic service corporations.

Following the legislative report, associate executive director Richard Hess reported that AMA council nominations have been forwarded with appropriate supporting materials.

Physicians nominated to the councils are Dr Ed L. Calhoon, Council on Legislation; Dr Don Cooper, Council on Scientific Affairs; and Dr Jack Nettles, Council on Medical Education.

The Trustees also approved the following honorary and life membership requests: Choctaw-Pushmataha County, Dr Floyd L. Waters; Canadian County, Dr Alpha L. Johnson; East Central Counties, Dr Gladys Smith; Grady County, Dr Richard Giles Stoll; Northwest County, Dr M. H. Newman, and Tulsa County, Dr Lucien M. Pascucci and Dr Charles G. Stuard. □

Carter Curbs Inflation In 1980 Budget Funding

In an effort to control federal expenditures, President Carter has reduced funding allocations for health programs in his proposed 1980 budget.

The Health, Education and Welfare budget will be \$52 billion even with cutbacks in funding for human services, biomedical research and medical education.

The President's recommendation is approximately \$40 million less than the amount the American Medical Association has recommended to the Office of Management and Budget.

Funding should be greater for programs fundamental in disease prevention, Maternal and Child Health Care, Voluntary Effort and Professional Standards Review Organizations, according to AMA officials.

President Carter's proposed health programs include the reintroduction of legislation to establish a Child Health Assurance Program, an increase in Medicare reimbursement for outpatient psychiatric services and reduction in the Medicare waiting period for re-entitled disabled individuals.

The President's budget included three special initiatives which will affect public health programs: an increase of \$91 million for mental health and alcoholism programs, an increase of \$137 million for funding preventive health programs, and a net increase of \$20 million for programs to reform the health system.

Six major initiatives will be aimed at reducing hospital costs and physician fees.

Hospital cost containment legislation is again proposed with a voluntary industry goal of a 9.7 per cent limit to cost increases and stand-by mandatory federal controls if hospitals fail to meet the voluntary goal.

Federal programs' reimbursement for hospital malpractice insurance will be based on actual experience of federal beneficiaries, rather than on their rate of utilization of hospital services.

Fraud, abuse and error reduction efforts would be increased by proposed legislation to modify federal reimbursement to hospital-based physicians.

HEW will recommend legislation to eliminate Medicare and Medicaid payments for chiropractors and will propose legislation to change physician reimbursement under Medicare. □

HEW Amends Requirements For Medicaid Sterilizations

Requirements for sterilizations paid for under the Medicaid program (Title XIX) have been amended by the Department of Health, Education and Welfare.

The amended federal regulations, effective February 6, mandated a new consent form, restricted funding for hysterectomies and stopped payment for sterilization of patients younger than 21 years of age, mentally incompetent or institutionalized persons.

The new consent form is not valid if obtained during labor, childbirth and abortion or if the patient is under the influence of alcohol or other substances that might affect the state of awareness.

All claims for sterilization must be signed at least 30 days, but not more than 180 days, before the operation. An exception is made in cases of premature delivery or emergency abdominal surgery.

Hysterectomy claims must include a copy of a consent form signed by the patient to show that the person who secured authorization has informed the individual of the permanent incapacity to reproduce.

Federal funding, however, is not available for hysterectomies performed for sterilization purposes. ☐

Study Shows Low Fees For Sunbelt Physicians

Medicare patients in the Sunbelt have lower physician-fees than do their counterparts in some other areas, according to a Health Research Group study on Medicare fees.

Although Oklahoma fees were not included in the study, Oklahoma fees are comparable with those charged in Dallas.

A Dallas cholecystectomy was \$667 as compared to the national average of \$813 and a \$333 hernia repair was below the average rate of \$528.

Dallas costs exceeded the national average rate in lens extractions, \$556 to \$532 and in prostatectomy, \$639 to \$605.

Members of the research group found large geographic differences in physicians' prevailing charges for Medicare. ☐

OSHA Proposes Access To Medical Records

A proposed Occupational Safety and Health Administration (OSHA) rule would minimize physician-patient confidentiality, members of the American Medical Association legislative department, have claimed.

During public hearings on the proposed rule, "Access to Employee Exposure and Medical Records," AMA testimony urged several changes in the rule prior to its promulgation in final form.

While the Privacy Act and the Freedom of Information Act afford some protections, it is considered that specific provisions for maintaining the confidentiality of medical information should be included in the regulatory proposal.

The proposal should have internal security steps that include particular limitations on further distribution and guidelines for the duration, nature and form of the consent, the committee said.

The AMA called the proposal an undesirable intrusion into the personal privacy of many citizens and said the proposal is not needed in order to affect OSHA's purposes. ☐

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Medicare Changes Coverage For Testing Procedures

The Medicare Bureau recently changed Medicare Part B carriers' coverage for several testing procedures.

Program payment was determined by the effectiveness and the necessity of the procedure for the individual patient.

Approved types of therapy include porcine skin and gradient pressure dressings, Frieder prism seg prosthetic lens, histocompatibility testing, electromyography, vertebral artery surgery, blood platelet transfusions and bone marrow transplantation.

Due to the experimental status and questions about the safety and effectiveness of the following procedures, Medicare reimbursement was denied for autogenous epidural blood graft, chemical aversion therapy for alcoholism, challenge ingestion food testing, biofeedback therapy, oxygen treatment for inner ear disorders and carbon therapy and hair analysis. □

(Continued on Page 93)

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Final classification of the less-than-effective indications requires further investigation.

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Usage in Pregnancy: Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy. Advise patients to discuss therapy if they intend to or do become pregnant.

As with all anticholinergics, inhibition of lactation may occur.

Precautions: In elderly and debilitated, limit dosage to smallest effective amount to preclude ataxia, oversedation, confusion (no more than 2 capsules/day initially; increase gradually as needed and tolerated). Though generally not recommended, if combination therapy with other psychotropics seems indicated, carefully consider pharmacology of agents, particularly potentiating drugs such as MAO inhibitors, phenothiazines. Observe usual precautions in presence of impaired renal or hepatic function. Paradoxical reactions reported in psychiatric patients. Employ usual precautions in treating anxiety states with evidence of impending depression; suicidal tendencies may be present and protective measures necessary. Variable effects on blood coagulation reported very rarely in patients receiving the drug and oral anticoagulants; causal relationship not established.

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CME Council Names Ad Hoc Committee

The Council on Medical Education has named an ad hoc committee to make recommendations on what type of information physicians should reveal in exemption requests.

Council members said many physicians file for exemption from CME requirements without providing substantial information on why they seek the exemption.

Dr Sam Jack, Lawton, committee chairman; Dr John Drake, Oklahoma City, and Dr James Loudon, Shawnee, will serve on the committee.

The ad hoc committee will design questions physicians should answer about long-term prognosis and future medical activities.

Council chairman Dr William R. Smith expects the exemption requests to increase as the January, 1981 deadline approaches.

To receive the American Medical Association Physicians Recognition Award, a physician (unless exempt) must accumulate 150 CME credit hours within a three-year period.

The physician is required to keep a record of accumulated CME hours and using the AMA's

official application form, turn them in to the AMA at the end of the three years.

Organizations accredited to sponsor Category I CME activities in Oklahoma City are the University of Oklahoma Medical Center, South Community Hospital, Baptist Medical Center and St Anthony Hospital.

Accredited hospitals in Tulsa are St John's Hospital, Hillcrest Medical Center and St Francis Hospital, Inc. ☐

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OURS Saves Hospital Days

The Oklahoma Utilization Review System (OURS) has had a significant impact statewide, the General Accounting Office (GAO) of the United States Congress has reported.

During the 15 months of the OURS plan, preliminary calculations indicated that the Oklahoma Foundation for Peer Review may have saved over 100,000 hospital days.

The audit utilized the Medicare and Medicaid claim data filed during the last six months of calendar year 1976 and claims filed between February 1, 1977, and April 30, 1978.

The GAO has been conducting a program audit of the Foundation's OURS plan and its conversion to a Professional Standards Review Organization.

Auditors anticipate the final report will be ready by mid-March. □

State Regents Launch Physician-Ratio Study

The Oklahoma State Regents for Higher Education recently raised questions about the rapid and continued growth of medical education in Oklahoma.

The regents directed Dr E. T. Dunlap, state chancellor of higher education to have a study made on the question.

Dr C. S. Lewis Jr., immediate past-president of OSMA, reported in his study, "Physician Manpower in Oklahoma in 1978," the number of practicing physicians in the state has increased 53 per cent in 11 years.

The study said that residencies at medical institutions in Oklahoma have grown from 366 to 589 between 1974 and 1978. In 1976, there were 105 physicians per 100,000 people. In 1978, that number had grown to 141 per 100,000.

The number of graduates from Oklahoma medical and osteopathic schools has grown from 150 in 1970 to 234 in 1978, he said. □

HEW Proposes Model Drug Law

The Department of Health, Education and Welfare and the Federal Trade Commission recently proposed a state model "drug production selection" law.

Pharmacists would be required by the model

law to fill all prescriptions with drugs from an HEW approved list of 2,000 generic drugs medically equivalent to higher priced brand name products.

The pharmacist would be allowed to dispense the brand name if the physician writes "medically necessary" on the prescription.

The FDA contends that there is only one standard of drugs available, since its organization controls the approval, marketing, manufacturing and distribution of all drug products.

Although the FDA monitors drugs to insure standards of strength, quality and purity, the American Medical Association authorities say there is a lack of control over inert ingredients of generic drugs.

The AMA did not contest a standard where bioavailability or bioequivalence is not a problem or where therapeutic ranges are not narrow.

The association objected to the establishment of absolute equivalence for all drug products bearing the same generic name.

The AMA feels only physicians should be allowed to substitute generic drugs when medical and cost considerations balance for the patient.

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The Paper Poultice

Although the FDA hasn't announced any expression of concern, paper appears to be totally ineffective in the treatment of diseases of the health care system. In one extensive trial which is — in bureaucratese — "ongoing," it has not only failed to ameliorate the course of the disease but has seriously aggravated the symptoms so that the system now is virtually moribund. The tax-supported trial project is entitled "Medicare" and was designed by a semi-anonymous committee of paper-promoters which was entirely free of the bias associated with a knowledge of medicine and health care.

In effect, the project diverts millions of dollars, formerly squandered in purchasing health care from physicians and pharmacists and hospitals, to the purchase of paper — tons and tons of paper — and the purchase of postage to pay for the mailing of that paper to physicians, patients, hospitals and other — more bureaucratese — "vendors and providers of health care" — and the purchase of filing cabinets — miles and miles of filing cabinets — in which to store the paper — and the employment of clerks and typists — hundreds of thousands of clerks and typists to type on and file and otherwise process the paper.

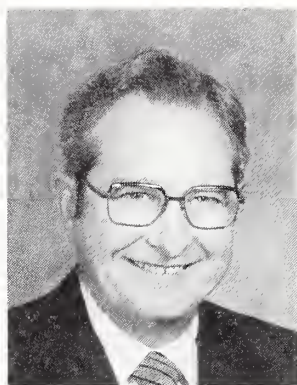
As originally proposed in the project, the paper would improve the quality of health care, make it readily available to all — bureaucratese again — "consumers" regardless of their geographic location or financial

condition, convert a cottage-industry into a giant corporation of peerless efficiency and transform a self-serving monopoly into a benevolent public utility.

Something went wrong, however, with the entire experiment. Analysts from the paper-promoters group initially thought the doses of paper were inadequate so they increased them by a few dozen sheets — in quadruplicate — with carbons. The system mysteriously failed to respond. Serious complications developed so the analysts from HEW were called in. They proclaimed — and still do in the most public ways — that physicians and hospitals and drug companies are poisoning the system and neutralizing the therapeutic effects of the paper.

In spite of all these efforts, the system has shown no sign of recovery. Its course has continued downhill. In a desperate attempt to stabilize deteriorating vital signs, politicians are now being persuaded to take drastic action which, the paper-promoters insist, will be life-saving. These law-making-politician-health-care-expert-consultants are being asked to invoke price controls, fix fees, set ceilings and ration care. Surely, however, even these messianic prophets realize if such measures are employed, they will only hasten the death of the system. They know that strangling is incompatible with life. And by this time they should realize that paper has no therapeutic value whatsoever. It cures nothing but efficiency, prosperity and success.
MRJ

Try as I may, I cannot find the term Potomac Fever in any of my medical books. And yet from my experiences I know positively that it exists. There are definite symptoms, and it seems to attack a select group of people. Apparently, however, there is no known cure.



For instance I saw a number of typical cases of Potomac Fever during a recent trip Perry Lambird, David Bickham and I took to Washington, D.C. It was there I learned that knowledge is not necessarily an attribute. In fact, it can be a real drawback.

For instance, I have known for some time that the Department of Health, Education and Welfare is a huge federal agency with hundreds of thousands of employees administering billions of tax dollars. I know that HEW is directly responsible for a large percentage of hospital revenues and also physician fees. I know that HEW is charged by Congress with regulating various segments of our professional lives. I know all of this, but because of the many people and the large amount of money, HEW has never had a definable image . . . it was never a face or a building. It was more of a concept.

Today I know a lot more about HEW. For example, while in Washington, Doctor Lambird, Mr. Bickham and I were briefed by and visited with a large contingency from the HEW bureaucracy. We trekked through miles of dimly lighted, monstrous building corridors, and we talked to a number of people about specific issues and problems that affect the medical care which is delivered to Oklahoma patients. Now I know there are literally hundreds upon hundreds of bright, extremely well-educated young people who want to help us take care of our patients. Many of them are graduates of prominent medical schools, and most all of them have good intentions. They are dedicated to the

improvement of medical care . . . they have names, faces, personalities and in many ways they are the same as you and I. What's depressing, however, is that too many of them have never seen a patient; too many have never been in a hospital; too many have never had to be the purveyor of bad news to a parent or a family. Their patients come from books, accumulated statistics . . . their hospitals are institutions whose patients have no names. They deal in the aggregate. What's good for the Eastern Megalopolis must necessarily also be good for the people of Oklahoma. How can the standards for "Mass General Hospital" deprive patients of quality care at Beaver Memorial? Why can't the hospital laboratory at Okarche meet the same personnel regulations that apply to "National General Hospital." Day after day these well-intentioned, bright, dedicated young people write regulation after regulation after regulation that affect your patients. To them your patients don't have a name. They are statistics! Statistics from a state which has little political clout.

And so the outbreak of Potomac Fever rages on. It affects both the political hack who has made his living off of the people and the young, bright, well-intentioned government workers who really don't know what it's like on the outside. My trip to Washington made it even more apparent that the future of medicine relies upon a strong organization.

I hope 20 years from now American medicine can be just as proud of its past and just as optimistic about its future.

This is my last President's Page, and I want to take this opportunity to thank all of you who have done so much to make the past year a pleasant experience for me. We have won some battles and we have lost some, but most of all we kept up the good fight. And to me that's what's most important. □

Marvin K. Margo A.C.

Idiopathic Hypoparathyroidism: Diagnostic and Therapeutic Considerations

RONALD P. PAINTON, MD
DAVID C. KEM, MD

The medical challenge of hypoparathyroidism begins with the diagnosis. Therapy then tests the physician's skills by requiring a blend of pathophysiological insight and caution.

INTRODUCTION

Idiopathic hypoparathyroidism is a rare condition. While affecting females more often than males,¹ the disease frequently begins in childhood, but less often this may occur in the later years of life. Symptoms are often insidious in onset and a lengthy delay in diagnosis is common. Dimich *et al*² reported a range of six months to 27 years (mean 10.6 years) for the time from onset of symptoms to the establishment of a diagnosis in a series of patients diagnosed at ages ranging from one to 68 years.

The etiology of the disease remains uncertain. Reports of associated deficiencies in function of the adrenal glands, ovaries and thyroid gland as well as the occurrence of pernicious anemia, diabetes mellitus, moniliasis and Hashimoto's thyroiditis have suggested a possible autoimmune mechanism.^{1, 3-7} Humoral antibodies against endocrine tissues have been found in many of these patients. This form of the disease appears to be familial; x-linked recessive in those developing symptoms prior to the age of six months and autosomal recessive in others.^{5, 8} In other patients, idiopathic hypoparathyroidism occurs without associated endocrine deficiencies, either on a spontaneous or familial basis.⁹

The physician faced with a parathormone-deficient patient, however, is most likely to be dealing with iatrogenic disease occurring after thyroid or parathyroid surgery. Although a scar on the neck or surgical history may be a clue, the unsuspecting physician may miss the diagnosis due to an extremely variable delay in onset of symptoms following surgery. Clinical disease may begin in the early postoperative period or may be delayed for many years.

Additional causes of hypoparathyroidism include the absence of parathyroid glands associated with thymic aplasia (Di George syndrome), parathyroid damage due to hemorrhage or infection and infiltration of glandular tissue by tumor cells in metastatic disease or

From the Endocrinology, Metabolism and Hypertension Section, Department of Medicine, University of Oklahoma Health Sciences Center, Post Office Box 26901, Oklahoma City, OK 73190.

by iron in iron-overload disease.¹⁰ Rarely, parathyroid insufficiency may follow ¹³¹I therapy for thyroid disease.¹ To this list should be added the state of deficient end-organ response to circulating parathormone, termed pseudohypoparathyroidism.

Once a diagnosis is established, the physician generally must treat the patient with vitamin D and calcium supplementation, a regimen that is frequently quite unpredictable in its outcome. A basic understanding of therapeutic principles and objectives is required since devastating consequences may occur when proper guidelines are not followed.

Recently, two patients have been seen at the University of Oklahoma Health Sciences Center with idiopathic hypoparathyroidism and their courses illustrate some of the diagnostic and therapeutic problems this disease may present to the physician. Consideration is then given to the clinical approach to hypoparathyroid states.

PATIENT SUMMARIES

Patient 1. A 44-year-old woman was admitted to the hospital with severe tetany.

The admission was prompted by the finding of basal ganglia calcification on skull films taken after the patient suffered a minor fall. This led to the discovery of hypocalcemia and referral for further evaluation. Additional history included relatively normal development through early adulthood. About five years prior to admission, the onset of general mental and physical "deterioration" was noted, eventually necessitating nursing home placement one year prior to admission. The patient had received diphenylhydantoin and thyroid hormone for several years for apparent grand mal epilepsy and hypothyroidism. There was no history of thyroid surgery or known family history of thyroid, parathyroid or bone disease.

Physical examination revealed a small, thin white female with generalized tetany. The temperature was 37.5°C, the pulse 82/minute, the blood pressure 120/70 and respirations were 16/minute. The patient communicated with only "yes" or "no" responses. She was normocephalic and edentulous. Bilateral cataracts were present. No thyroid abnormalities or scars on the neck were noted. The

skin was clear, breasts were small, and external genitalia were not remarkable. There were no skeletal deformities. A constant facial grimace was present and there was generalized hyperreflexia with intermittent choreoathetoid movement of the extremities.

Admitting laboratory data revealed a serum calcium of 4.5mg/dl and a phosphorus of 8.6mg/dl. Serum glucose was 105mg/dl. The hematocrit was 30.1% with a WBC count of 7,300/cu mm. Stool guaiac was negative. BUN, electrolytes and urine were normal. Calcification of the basal ganglia was reconfirmed on skull films obtained at the time of admission.

Early treatment consisted of calcium gluconate infusions while monitoring serum calcium levels. There was prompt relief of tetany as the serum calcium rose above 5mg/dl. Oral vitamin D therapy (calciferol 50,000 IU twice daily) and supplemental dietary calcium with glubionate calcium syrup 15ml three times daily (each 5ml contains 115mg elemental calcium) were started on the second day. With this regimen the serum calcium stabilized at 6 to 7mg/dl. The patient was later changed from calciferol to dihydrotachysterol which further raised the serum calcium to 8mg/dl. Diphenylhydantoin was discontinued and no seizure activity occurred. L-thyroxine (0.3mg daily) was continued. In spite of improvement in other hypocalcemic symptoms, little change was seen in the patient's mental status during hospitalization.

Since his graduation from the University of Oklahoma College of Medicine in 1972, Ronald P. Painton, MD, has been certified by the American Board of Internal Medicine. Dr Painton is assistant professor in medicine at his school of graduation and a member of the Alpha Omega Alpha and the Stewart Wolf Society.

Certified by the American Board of Internal Medicine, David C. Kem, MD, was graduated from Columbia University College of Physicians and Surgeons in 1963. He is presently professor of medicine and chief of the Section of Endocrinology, Metabolism and Hypertension at the University of Oklahoma Health Sciences Center. Dr Kem is affiliated with the Central Society for Clinical Research, the Council for High Blood Pressure Research of the American Heart Association and the Endocrine Society.

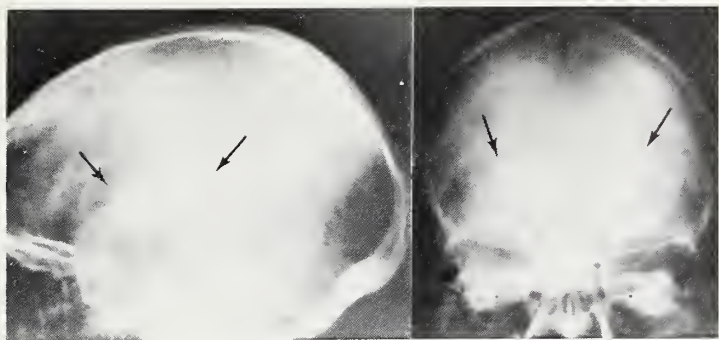


Fig 1. AP and lateral skull films on patient 1 revealing basal ganglia calcification.

Further evaluation included a normal brain scan and an EEG which was suggestive of bilateral temporal lobe dysfunction. Serum iron studies, B12 and folate levels and a serum magnesium were normal. Endocrine evaluation included a normal serum T4 and T3 resin uptake. Anti-thyroglobulin antibodies were undetectable. Serum FSH, LH and estradiol levels were normal. ACTH stimulation yielded a normal adrenocortical response. The serum parathormone level was 400pg/ml (reference lab* normal range: up to 500pg/ml) with a simultaneous serum calcium of 5.8mg/dl. Two-hour urine samples for determinations of phosphorus, creatinine and cyclic AMP were collected before and after parathormone infusion. Baseline values revealed a phosphorus to creatinine ratio of 0.12 (normal AM ratio 0.4 to 0.6) and a cyclic AMP level of 4.335 micromoles/gram creatinine. Parathormone infusion resulted in stimulation to values of 0.4 and 12.376 micromoles/gram creatinine respectively.

Diagnoses on discharge after a one-month hospital stay were: 1) idiopathic hypoparathyroidism, 2) hypocalcemic-induced seizures and dementia, 3) historical evidence for hypothyroidism and 4) anemia of undetermined cause. The patient was discharged and advised to continue taking dihydrotachysterol 1mg twice daily, glubionate calcium syrup 45ml three times daily, and L-thyroxine 0.3mg daily. Plans for follow-up visits in the Endocrinology Clinic at University Hospital were arranged.

Patient 2. A 34-year-old woman was admitted to the hospital with a history of seizures which had occurred for three months prior to admission.

Except for several febrile seizures as a child, the patient had been seizure-free until three months prior to admission when she experienced a major motor seizure. Another occurred

three weeks prior to admission and she was treated with diphenylhydantoin, but several more seizures occurred the day before admission. There was no history of head trauma, headaches or other neurological symptoms. No history of thyroid disease was obtained. Family history was negative for endocrine disease and seizure disorders. The patient had been small in stature since childhood, felt to be secondary to achondroplasia. A normal menstrual history was reported and mental development had been uneventful.

Physical examination revealed a small white female, measuring 121cm in height and weighing 23.4kg. The temperature was 37.6°C, the blood pressure 100/68, the pulse 100/minute and respirations were 18/minute. Funduscopic findings were normal. The patient was edentulous. The skin was clear and the neck normal. Extremities were proportionately small, but otherwise normal. She was oriented and judged to be of normal intelligence. Neurological findings were unremarkable except for mild generalized hyperreflexia. Latent tetany was not detected.

The patient remained seizure-free after admission and on the second day blood chemistries revealed a calcium of 4.7mg/dl and phosphorus of 8.6mg/dl. Initial data further revealed normal BUN, electrolytes and glucose. A normocytic anemia (hematocrit 30.5%) and a negative stool guaiac test were noted. Chest film revealed changes in the shoulder girdles compatible with achondroplasia. Skull films demonstrated hyperostosis frontalis and calcifications overlapping the left orbital region. (Follow-up tomograms revealed periventricular and basal ganglia calcification.) Hand films were negative for dysplastic or achondroplastic changes. Prolongation of the Q-T interval was seen on ECG.

A presumptive diagnosis of hypoparathyroidism was made and treatment with oral calciferol 50,000 IU twice daily and glubionate calcium syrup 15ml three times daily was initiated. Aluminum hydroxide gel was added to the regimen. The serum calcium rose to a range of 5.5 to 6mg/dl by the time of discharge on the seventh hospital day. The patient had remained asymptomatic during hospitalization.

Additional evaluation included a normal brain scan and an EEG suggestive of minimal electrical irregularity in the left posterior hemisphere. A plasma diphenylhydantoin

*Bio-Science Laboratories, Van Nuys, California

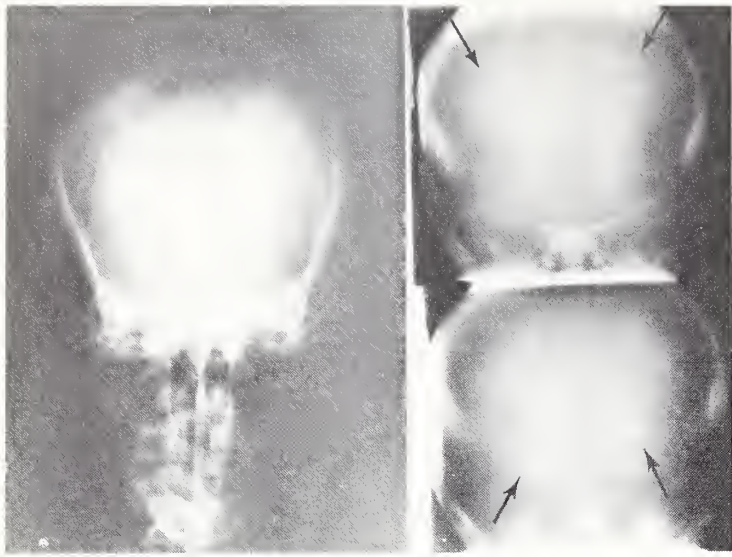


Fig 2. AP skull film and tomograms on patient 2 showing peri-ventricular and basal ganglia calcification.

level was slightly above the therapeutic range. (Anticonvulsant therapy was discontinued early in the hospital course.) Serum iron was not remarkable. The serum B12 level was normal and the folate level was slightly depressed. Thyroid studies and a TSH level were normal. An insulin tolerance test was performed yielding a normal growth hormone response (13mg/dl at 30 min., 23mg/dl at 60 min. with a baseline 4.1mg/dl) and a normal plasma cortisol response (35 micrograms/dl at 30 min. with a baseline of 20 micrograms/dl). Blood drawn for a parathormone level was mishandled preventing valid results. The patient was discharged on the eighth hospital day to be followed in the Endocrinology Clinic. Diagnoses on discharge were: 1) idiopathic hypoparathyroidism, 2) anemia of undetermined cause, and 3) dwarfism, not fully characterized.

One week later in the outpatient department the patient's serum calcium was 9.8mg/dl and the medical therapy as previously outlined was continued. She returned in five weeks with mental confusion, nausea and vomiting of five days duration. Physical examination revealed a disoriented patient with generalized weakness. Vital signs were stable. The neck was supple and the ocular fundi were normal. Laboratory data revealed a serum calcium of 20mg/dl, phosphorus 3mg/dl, BUN 35mg/dl, sodium 143meq/L, potassium 3.4meq/L, chloride 95meq/L and bicarbonate of 38meq/L. Therapy was initiated in the medical intensive care unit with intravenous normal saline at 150ml/hour and intermittent parenteral

furosemide. The serum calcium dropped to 15.1mg/dl by the next day and intravenous fluids were stopped on the fourth hospital day when a level of 10.1mg/dl had been reached. The patient was discharged after calcium and vitamin D therapy was discontinued. Three weeks after discharge, the patient's serum calcium was 9.9mg/dl. One month later oral calcium supplementation was reinstituted when the serum calcium had dropped to 7.6mg/dl. Vitamin D supplementation (oral calciferol 50,000 IU every other day) were added and plans were made for follow-up visits in the Endocrinology Clinic.

DISCUSSION

Both patients illustrate classical presentations for hypoparathyroidism, namely neurological manifestations of hypocalcemia. They were severely hypocalcemic with hyperphosphatemia on admission and seizure activity was prominent in both. There was no evidence of iatrogenic disease nor were there clinical stigmata suggestive of other hypocalcemic states. Patient 1 demonstrated evidence of extrapyramidal system disease (choreoathetosis) which is believed to arise in part from calcification of the basal ganglia.¹¹ Dementia was the most prominent symptom, as may be true of this disease,¹² and therapy did not yield significant improvement. True parathormone deficiency, as contrasted to deficient end-organ response, was documented by the results of parathormone infusion (increased renal excretion of phosphorus and cyclic AMP) and by a serum parathormone level falling in the "normal" range in spite of a simultaneous serum calcium of 5.8mg/dl. Although parathormone infusion was not performed in Patient 2, there is little reason to doubt her diagnosis in view of the clinical picture and lack of evidence suggesting iatrogenic disease or physical signs suggestive of pseudohypoparathyroidism.^{1, 3, 13} The neurological symptoms were completely reversible, as contrasted to Patient 1. In addition, her clinical course clearly demonstrates the need for careful follow-up studies in the management of hypoparathyroidism.

DIAGNOSTIC CONSIDERATIONS

Establishing the diagnosis of idiopathic hypoparathyroidism initially requires awareness of the variable clinical pictures which

these patients present and an index of suspicion in appropriate clinical settings. The most frequent symptom is tetany which is due to increased neuromuscular irritability resulting from hypocalcemia. In a series of 34 patients with hypoparathyroidism, carpopedal spasm was the primary symptom in 29.² Paresthesias are frequent complaints and non-specific symptoms such as muscle weakness, fatigue and palpitations are common. Difficulty in breathing, syncopal episodes and seizures, as in our two patients, are often noted. Alterations in mentation such as hypochondriasis, uncooperativeness, personality changes and dementia occur in chronic untreated disease. There may be a history of previous admissions to mental institutions. A positive family history may be obtained in the familial form of disease.

In addition to neurological manifestations, physical examination may reveal lenticular cataracts, aplasia or hypoplasia of the teeth, scaliness and moniliasis of the skin and brittle nails.^{1, 3, 13} Tetany may be overt or latent (as manifested by the presence of Chvostek's and Trousseau's signs). Evidence for associated endocrine deficiencies may be present.

The chemical hallmark of hypoparathyroid states is the combination of hypocalcemia and hyperphosphatemia. The discovery of hypocalcemia, however, should initially suggest a consideration of the differential diagnosis of hypocalcemic states. One must also consider conditions such as vitamin D deficiency (dietary and/or malabsorptive etiology), chronic renal failure, pancreatitis and hypomagnesemia (which seems to interfere with parathormone secretion and, perhaps, end-organ response³). Anticonvulsant therapy (principally phenobarbital and diphenylhydantoin) may induce hypocalcemia, presumably by altering vitamin D metabolism.^{14, 15} Hypocalcemia may be seen with hypoalbuminemia but this is usually asymptomatic due to a normal ionized serum calcium level. In contrast, alkalotic states may induce symptomatic hypocalcemia resulting from depression of the ionized calcium fraction in spite of a normal total serum calcium. Hyperphosphatemia, when present, suggests either hypoparathyroidism or chronic renal failure. Finally, skull films may be helpful at this stage since basal ganglia calcification is characteristically seen in parathormone-deficient states.

The final diagnostic steps involve differen-

tiating true parathormone deficiency from end-organ resistance to circulating parathormone. The latter abnormality, termed pseudohypothyroidism, is a genetically induced condition (x-linked dominant with variable expression) characterized by biochemical hypoparathyroidism associated with skeletal abnormalities, short stature, round facies and shortened metacarpals.^{1, 3, 13} The end-organ resistance in this syndrome appears to be due to a defective receptor site for parathormone or altered adenyl cyclase activity (with reference to the presumed mechanism of action of parathormone at the cellular level).^{3, 13} Additional rare variant hypoparathyroid states have recently been described¹⁶⁻¹⁸ and are of physiologic interest. Lastly, mention should be made of the term pseudopseudohypoparathyroidism which refers to the skeletal abnormalities characteristic of pseudohypoparathyroidism occurring in patients without biochemical evidence of parathormone deficiency.

Diagnostic tools available for this final differentiation consist primarily of the parathormone radioimmunoassay and parathormone infusion testing. Serum parathormone levels are classically low or undetectable in true parathormone deficient states and are normal or high in states of end-organ resistance.^{1, 19} One should recall that a serum parathormone level falling within the "normal range" in the face of hypocalcemia may actually represent parathormone deficiency since hypocalcemia is the primary stimulus for increased parathormone secretion. This phenomenon was observed in Patient 1. Parathormone infusion enables one to test for the presence (or absence) of renal responsiveness to parathormone. In general, infused parathormone results in increased phosphaturia (phosphorus/creatinine ratio used in Patient 1) and prompt stimulation of urinary cyclic AMP excretion (via activation of renal adenyl cyclase) when there is true parathormone deficiency.¹³ In contrast, little or no response is seen in patients with pseudohypoparathyroidism due to their end-organ resistance to parathormone.

THERAPY

Currently available therapy for hypoparathyroidism is less than ideal. Parathyroid hormone would logically be the treatment of choice, but this is not commercially feasible. In addition, parathormone must be given paren-

terally, its effectiveness may be altered by antibody formation and it would obviously be ineffective in patients with end-organ resistance. Management consists primarily of the use of vitamin D and calcium supplementation, a regimen often yielding unpredictable responses not only from patient to patient, but from time to time in the same patient. With this in mind, what are the goals of therapy? In general, one hopes to avoid hypocalcemic symptoms and prevent long term complications such as cataracts and mental deterioration while still providing a margin of safety against the ever-present danger of vitamin D intoxication. Therefore, the serum calcium should be maintained in the range of 8 to 9mg/dl along with conscientious patient follow-up, a requirement for the remainder of the patient's life. Adherence to therapeutic guidelines is crucial for the attainment of these objectives.

Calcium supplementation is essential to proper therapy. If the patient presents with acute hypocalcemia, an infusion of 10 ml 10% calcium gluconate given over 10-to-30-minutes and repeated as often as clinically indicated along with close monitoring of the serum calcium constitutes an acceptable regimen. Cardiac monitoring is also indicated in this situation. Oral calcium is instituted when feasible and patients are then given supplements with one or two grams of elemental calcium daily. Calcium may be given in various forms such as calcium lactate, gluconate or chloride. The physician must be familiar with the percentage of elemental calcium contained in the preparation he chooses in order to prescribe the desired dose. For example, to provide one gram of elemental calcium one must administer 5.5 grams of calcium chloride, eight grams of calcium lactate or eleven grams of calcium gluconate. Each preparation has certain disadvantages such as the occasional poor dissolution of calcium lactate in the gastrointestinal tract, calcium chloride induced gastric irritation and the higher cost of calcium gluconate. In addition, some require large daily doses which may result in poor patient compliance.

The primary therapeutic tool is vitamin D (calciferol). Time-honored therapy has consisted of vitamin D₂ (plant, ergocalciferol) which possesses the same antirachitic potency of vitamin D₃ (human, cholecalciferol). Many

prefer dihydrotachysterol, a vitamin D analog that, although much more expensive than calciferol, offers certain therapeutic advantages. Extensive investigational efforts are now in progress with newer vitamin D compounds that possess superior properties in various hypocalcemic disease states. Results of therapy in patients with chronic renal failure using 1- α -hydroxyvitamin D have been encouraging^{20, 21} as have those in some hypoparathyroid patients treated with preformed 25-hydroxyvitamin D.²² Recently made commercially available and now recommended for the management of hypocalcemia in patients with chronic renal failure, pre-formed 1,25-dihydroxyvitamin D has also been shown to be effective in the treatment of hypoparathyroidism.^{23, 24} A major disadvantage in the use of these new agents for a period of time will be their high cost to the patient which will likely be prohibitive in many cases.

The effective dose of calciferol in hypoparathyroid patients far exceeds physiologic requirements in normals. Current concepts of vitamin D metabolism appear to shed some light on this phenomenon.²⁴⁻²⁸ Briefly, it is now believed that vitamin D must undergo two enzymatic hydroxylations before it can function at target cells. It is first hydroxylated in the liver to form 25-hydroxyvitamin D. This metabolite is further hydroxylated in the kidney yielding 1,25-dihydroxyvitamin D which is believed to be the active form of vitamin D, mediating such effects as increased gastrointestinal absorption of calcium phosphorus. Furthermore, parathormone stimulates 1-hydroxylation in the kidney and hyperphosphatemia inhibits this reaction. Since both parathormone deficiency and hyperphosphatemia are present in hypoparathyroid states, a logical explanation for the associated resistance to calciferol therapy is apparent. Hypoparathyroid patients have now been shown to respond to physiological doses of preformed 1,25 dihydroxyvitamin D²⁴, a maneuver that bypasses the 1-hydroxylation reaction. This concept appears to explain the increased potency of dihydrotachysterol as compared to calciferol in that dihydrotachysterol also does not require hydroxylation in the kidney for activity.¹³

Calciferol therapy is initiated with a dose ranging from 25,000 to 100,000 IU daily. Maintenance requirements vary considerably, but in a series of patients with iatrogenic

hypoparathyroidism the mean controlling dose was 84,000 IU daily.²⁹ If dihydrotachysterol is to be used, the effective dose ranges from 0.5 to 2mg daily with most patients requiring one mg or less. Crystalline dihydrotachysterol is preferred over the commercially available preparation AT-10 since the biological potency of the latter may vary by a factor of 5.³⁰

The proper use of calciferol requires knowledge of additional principles. There is a significant time lag between the initiation of therapy, or a dosage adjustment, and the maximal clinical response. The same phenomenon is seen when therapy is stopped as, for example, in vitamin D intoxication since hypercalcemia may tend to persist for weeks to months due to increased body stores. Here, dihydrotachysterol offers another therapeutic advantage in that it not only increases the serum calcium more rapidly than calciferol, but its effects dissipate more rapidly.³¹ This will constitute a major advantage in the use of the new pre-formed vitamin D metabolites, since they also possess these properties. The difference between a "controlling" dose and an "intoxicating" dose of calciferol may be quite small in hypoparathyroid patients. Furthermore, requirements for a particular patient may change with time, exemplified by the observation that some patients require higher doses during winter months.¹³ Anticonvulsant therapy may cause increased resistance by altering vitamin D metabolism as previously mentioned. Thiazide diuretics may induce hypercalcemia in patients who were formerly stabilized on a particular dose of calciferol.³² Estrogens have also resulted in therapeutic difficulties, probably due to their suppressive effect on bone resorption. Thus, resistance to therapy may occur in patients taking oral contraceptives while ovarian failure with the menopause may be associated with an enhanced response.³⁰

It should also be remembered that there is an increase in the urinary excretion of calcium during vitamin D therapy since vitamin D lacks the potency of parathormone in stimulating distal tubular reabsorption of calcium. Therefore, a potential for renal stone formation exists, especially if the serum calcium is elevated above the low-normal range.

Hyperphosphatemia may itself require treatment. Although phosphate depletion should be avoided, control of the serum phosphorus is indicated since hyperphosphatemia

depresses the serum calcium and enhances soft tissue calcification. Dietary phosphate restriction (primarily dairy products) is often used and may be combined with aluminum hydroxide gels which bind phosphorus in the gastrointestinal tract.

Long-term management is then carried out with these considerations in mind and the realization that vitamin D intoxication is a constant threat for the remainder of the patient's life. Initially, serum calcium levels should be monitored every one-to-two weeks until the dose of calciferol is stabilized. As the desired calcium level (8 to 9mg/dl) is approached, the dose should be cautiously adjusted while anticipating the continuing effects of previously consumed medication. Increments in dosage should be made no more often than every two-to-three weeks. After dosage stabilization, serum calcium determinations are indicated three-to-four times per year and any time symptoms suggestive of hypercalcemia or hypocalcemia occur. Following patients with the Sulkowitch test for urinary calcium is not recommended since test results correlate poorly with the serum calcium level.³⁰

Should vitamin D-induced hypercalcemia occur, vitamin D intake must be stopped and prompt therapy is indicated. If serious hypercalcemia is present, vigorous hydration with normal saline and parenteral furosemide to ensure diuresis are recommended. Glucocorticoids may be helpful due to their vitamin D-antagonistic effects. Vitamin D and calcium supplementation can be reinstituted cautiously once the serum calcium has dropped back to a low-normal range, although this may not occur for several months while the effects of previously consumed vitamin D dissipate.

SUMMARY

Two cases of idiopathic hypoparathyroidism are reported. The clinical courses of these patients illustrate the difficulties that face the physician when dealing with this disease: 1) establishing the diagnosis of an uncommon condition characterized by an insidious onset and variable clinical picture and 2) medical management requiring the use of therapeutic modalities with a significant degree of inherent unpredictability.

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Nonproprietary Names and Trademarks of Drugs

Glubionate Calcium — Neo-Calglucon

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Ronald P. Painton, MD, Department of Medicine,
University of Oklahoma Health Sciences Center,
P.O. Box 26901, Oklahoma City, Oklahoma 73190.

Transcatheter Embolization As An Aid To Surgical Excision of a Presacral Neurilemoma

CASE REPORT

DAN C. GALLOWAY, MD
JIM RODGERS, MD

A patient with a large presacral neurilemoma is reported. The arteriographic pattern of peripheral nerve tumors is discussed and the difficulty in differentiating benign from malignant lesions is noted. The use of transcatheter embolization as an aid to surgical excision of such vascular presacral tumors is emphasized.

Transcatheter embolization of selective vessels is a valuable aid prior to surgical excision of certain vascular lesions. Glomus jugulare tumors, dural and intracranial arteriovenous malformations, nasopharyngeal angiofibromas, meningiomas, and hypernephromas have all been treated with embolization as an adjunct to surgical excision.¹⁻⁸ This technique is aimed at reducing tumor vascularity making surgery technically more expedient.

We wish to report our experience with this technique in the treatment of a patient with a large presacral neurilemoma.

A forty-eight-year-old male with a twenty-five-year history of right hip pain and hypesthesia presented to his physician with a three-month history of mild rectal incontinence. Rectal exam revealed a large presacral mass. Sphincter tone and neurologic findings were not remarkable. An intravenous pyelogram was normal. Barium enema demonstrated a large extrinsic mass displacing the rectum to the left.

Two attempts at removal through a retrorectal and an anterior approach were unsuccessful due to the size of the mass and difficulty with hemostasis. Biopsy of the tumor revealed neurilemoma.

The patient was referred to us for further therapy. Tomography of the sacrum was normal. Percutaneous transfemoral arteriography demonstrated a large vascular pelvic tumor receiving its predominate blood supply from the right hypogastric artery. (Fig 1) Transcatheter embolization of the right hypogastric artery was performed using gelfoam as described in a previous report.⁹ Following embolization, arteriography demonstrated almost total obliteration of the vascular supply of the tumor. (Fig 2) The procedure was tolerated well without complication.

The following day the neurilemoma was removed through a posterior approach neces-



Figure 1

A. Mid-arterial phase of aortogram notes large vascular tumor in the pelvis being supplied by the right hypogastric artery.

B. Venous phase reveals a prominent tumor stain and many dilated tortuous veins.

sitating partial removal of the sacrum and coccyx. The operating surgeons felt the resection was greatly facilitated by the embolization procedure. Hemostasis was easily achieved and no transfusions were required. Pathologic examination revealed a neurilemoma with approximately fifty percent of the tumor demonstrating recent infarction. The postoperative course was unremarkable and the patient was discharged doing well.

DISCUSSION

There are several reports in the literature describing the arteriographic appearance of peripheral nerve tumors.¹⁰⁻¹¹ Stener described eight patients with peripheral nerve tumors and suggested that malignant schwannomas were highly vascular tumors while benign neurilemmomas were avascular.¹² However, one benign neurilemoma in his series demonstrated increased vascularity. He concluded that if a peripheral nerve tumor was suspected

and was found to be highly vascular on arteriography, a malignant lesion should be strongly suspected. He pointed out that avascular neurofibrosarcomas had been described. A large vascular presacral neurofibrosarcoma was reported by Grnja.¹³ Benign neurilemmomas may also be highly vascular as described in this report.

Dan C. Galloway, MD, a graduate of the University of Oklahoma College of Medicine, has been certified by the American Board of Radiology. He is presently associate professor of Radiological Sciences at his school of graduation. He is a member of the American College of Radiology, the Radiological Society of North America, the Association of University Radiologists and the Alpha Omega Alpha.

A 1976 graduate of the University of Oklahoma College of Medicine, Jim Rodgers, MD, is presently taking his residency training in neurosurgery.



Figure 2

Late arterial phase of selective right hypogastric artery injection following embolization demonstrates almost total obliteration of the vascular supply to the tumor.

Thus it would seem that the arteriographic demonstration of increased vascularity in peripheral nerve tumors does not necessarily imply malignancy. While most neurofibrosarcomas are highly vascular, and most neurilemmomas are avascular, the occasional neurilemmoma may also be quite vascular.

Any vascular presacral mass, neurilemmoma, neurofibrosarcoma, teratoma, or metastasis, may be treated with transcatheter embolization prior to surgical excision. The resection will be markedly facilitated due to reduced tumor vascularity and bulk.

Gelfoam appears to be the preferable embolizing material because of its availability and reasonable cost. Also, gelfoam is readily compressable enabling it to be easily injected through small catheters. This material produces relatively permanent occlusion of the desired vessel and is only slowly altered by the patient's fibrinolytic system.¹⁴

While peripheral embolization is a potential complication, this risk may be kept at a minimum. It is important as embolization proceeds that repeated contrast injections with

serialography be performed to document the sites of emboli. And, as obliteration of the blood supply occurs, fewer emboli should be injected because the greatest danger of peripheral embolization occurs as the vasculature of the tumor is obliterated and flow slows. Once small test doses of contrast reveal marked stasis or backflow into the common iliac artery embolization should cease.

Side effects of fever and flank pain may occur (but did not in our patient).

CONCLUSIONS

(1) The arteriographic demonstration of increased vascularity in a peripheral nerve tumor does not necessarily imply malignancy.

(2) Any large vascular presacral tumor with a predominant hypogastric arterial blood supply may be embolized as an aid to surgical excision. The procedure is tolerated well by the patient and may be performed with minimal morbidity. □

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University of Oklahoma Health Sciences Center,
P.O. Box 26901, Oklahoma City, Oklahoma 73190.

William Osler Revisited For Today's Student

JAMES A. KNIGHT, MD

Osler's way of life and teaching at the turn of the twentieth century is relevant to today's students, patients, and the community. "The great physician" provides a model.

There lived not too long ago on this continent and in England a physician who richly deserved the title of "beloved physician." His name was William Osler (1849-1919), and his skills in teaching, in the care of patients, in writing, and in radiating a genuine humanity have left a mark on medicine that time will never erase.

Sir Thomas Browne has written that "Tis opportune to look back upon old times and contemplate our forefathers."¹ This contemplation, or revisiting, is of our renowned forbear, William Osler, in company with the students of our day instead of his own.

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There appears to be great concern among students today about the quality and relevance of their medical training. The concern may be related to a number of factors, among them, change and ferment in medical education, recognition of the unavailability of medical services to many groups in our population, the search for new methods in the delivery of health care, student involvement in the social problems of mankind, and the persistence in medical schools of educational approaches with some similarities to closed systems of thought control.

Students are often dissatisfied with the education they are receiving. A "dehumanizing experience" is their frequent characterization of how they, as well as patients, are treated. Not infrequently in the past, students and their physician-teachers focused sharply on the individual patient and neglected the complex social and psychological factors which influence sickness and health. The recent rapid changes in society now prevent such a narrow focus. As a result, students and society are altering their demands on the medical school faster than the school can respond; and both are unhappy with the school.

In seeking to meet the many new demands imposed by society and government, the medical school has often failed to appreciate today's

students with their own set of priorities and concerns. Further, its faculty has not been as open to new knowledge about personal maturation and learning in students as it has been to other new developments.

Probably today's students can best be described as humanity- or person-oriented, rather than technique oriented. What they really want from their teachers and the medical school environment can be identified by asking them. Once the list is compiled, one discovers that Osler's life commitment is profoundly relevant for today's students. Thus, an effort is made in this paper to define the relevance of Osler's educational philosophy for meeting the demands of today's students in the health sciences.

Ten areas are identified which lend themselves to meaningful interaction between Osler and today's students. These areas are described in terms of what students are seeking and how Osler would have responded. The areas are: an educational process relevant to one's goals in life; a sense of priorities; social consciousness; orientation toward the care of the sick, the dying, and the relief of suffering; community involvement; freedom from bondage to materialism; permission to live today; addictive and contagious passions; recognition of a spiritual dimension to life; and the need for great models.

An Educational Process Relevant to One's Goals in Life. Medical school deans, pleading that medical schools be given back to students, are not and have not been numerous.⁴ A host of responsibilities seem to take priority over our educational commitment to students. As a result, our students feel that they are second-class citizens in the very institutions which should give them a place of honor. Their morale is often low and feeds a growing cynicism about the relevance of their educational experience in defining and attaining their goals. At times, they experience an alienation from themselves, from one another, and from the patients they serve.

Whenever Osler addressed students, he used the words "fellow students." With such a salutation, a sense of community was formed immediately with those who searched with him into the mysteries of health and disease. Brown has expressed well the charismatic and continuing influence of Osler on his students:

The more we learned, the more wonderful his boundless knowledge seemed; the wider our

vision, the more limitless his appeared . . . Because of him our lives have been better, our successes more real, our failures less hard to bear, for through the tangled skein that spells life each of us knows that in him he has, and will always have, a teacher, a friend, and a true fellow student to the end of the chapter.²

Osler saw no appreciable interval between the teacher and the one being taught, only that one was a little more advanced than the other. In such a learning atmosphere, Osler contended that a student would then feel that he had joined a family whose honor was his honor and whose welfare was his own.¹²

As a teacher, he had no peer. He spared no effort in preparing himself for his students. Dr Emile Holman, a former student, remembers him as "Delightfully informal, erudite beyond comparison, entertaining but surprisingly effective, Sir William Osler enjoyed teaching. So interestingly and compactly were his presentations arranged, it took little effort to remember them."⁷

Osler had a deep interest in medical pedagogy and often commented on the ingredients for good teaching and a good teacher. He suggested a school of medical pedagogy in which able young persons, aspiring to the position of teachers, could be taught proper methods.¹¹ Osler's dream of training opportunities for medical pedagogy is only a partial reality today, and students continue to suffer from ineffectual and stifling methods of teaching.

Osler was imaginative and innovative in his teaching. He made of the hospital a college and did his finest teaching at the bedside of patients. He insisted that the wards be thrown open to students. He assigned his students to the wards and remained there with them. Bedside teaching represented a radically different method of pedagogy to what had been practiced in most medical training centers in the United States up to that time. For example, Dr Henry M. Thomas, in comparing Osler's teaching methods with what he had seen as a student at the University of Maryland, stated that he had practically no opportunity to get close to patients. Although he had excellent professors, the teaching approach was the old lecture system. He received his medical degree in 1885 without ever having been instructed in physical diagnosis and won a prize in obstetrics without ever having seen a woman in labor.¹⁷

One of Osler's strongest dislikes was the practice of frequent examinations for students instead of an occasional one. He was convinced that examinations quenched the all-precious investigating spirit of students and made the end and object of study the meeting of certain tests. The examinations were not tests of the

capacity to do or to think but how far the student had made himself a phonograph or monotype on which an examiner might play.¹¹ The excessive use of the examination remains a part of the student's life in many medical centers and seems to block the development of more effective and personal methods of assessing student progress.

A Sense of Priorities. We dump into the laps of students huge textbooks and smother them with unlimited demands upon their time and energy. Endless classes, assignments, examinations, invidious comparisons, and the treating of knowledge and skill like some salable commodity render the students unable to know what is important, relevant, and meaningful in their educational experience.

Osler had the rare ability to place priorities in a proper order. He had such a remarkable sense of what is important and what should be emphasized that many of his judgments have stood the test of time. As Martin Cummings has noted, "With the exception of areas such as clinical therapeutics, which change rapidly, his philosophic and educational views are strengthened rather than weakened by the passage of time."¹²

He encouraged his students in their studies to ask "What do I need to know?" and not "What do you want me to do?" He coveted for the students not the role of a puppet in the hands of others but rather a self-relying and reflecting human being. The proliferation of examinations and rigid scheduling of all of the student's time offended Osler's educational sense. We are still struggling to keep faith with Osler's sound judgment on these points but not always with success.

Osler emphasized the blending of the old art of medicine with the new science. In his commitment he had a worthy example in a famous predecessor about whom he often spoke — Herman Boerhaave.³ When Boerhaave joined the faculty of the medical school in Leyden in 1693, medical practice throughout the world was chaotic and confused by new concepts of chemistry, physics, anatomy, and pathology. Boerhaave organized, distilled, and delivered the useful information from all the rapidly accumulating scientific knowledge of his day and balanced and mixed it with the ancient and traditional art of medicine. Rather than lecture on theory alone, he showed students and his colleagues what to do at the bedside of sick patients. He selected what was useful from an almost overwhelming mass of discovery and re-

jected an even greater mass of nonsense which was masquerading as discovery. This unique ability made him "the teacher of the whole of Europe," as a famous student described him.⁸ Osler surpassed Boerhaave in separating sense from nonsense by giving the world a book, *The Principles and Practice of Medicine*, which remained the pattern for textbooks of internal medicine for a half century. Both Boerhaave and Osler chose the most illuminating setting available for their teaching—the bedside of the patient.

The information explosion places a heavy burden on the student of organizing and integrating rapidly accumulating scientific knowledge with the ancient and traditional art of medicine. It is hoped that the student can gain a perspective from the example of physicians like Osler and Boerhaave.

Social Consciousness. Students are concerned with the poor and sick who live in the ghetto, the inner city, and isolated rural areas. They want their teachers to share their social concerns and to join them in action programs to correct social and individual ills.

Dr Gardner recalls one of Osler's clinical lectures to junior students at the Radcliffe Infirmary in which he mentioned "In my behavior to my patients I make no difference whatever between the high and the low, between a duchess and a cook."¹⁶ Gardner comments that in England, at that time, there was a considerable difference between cooks and duchesses and most people were inclined to treat them quite differently. Osler's principle in practice struck the students as excitingly enlightened and humane. His radiant humanity emerged as a source of extraordinary clinical success.

In Osler's address before medical students at St Mary's Hospital, London, Oct. 3, 1907, he used the ancient religious term, *calling*, to emphasize what a commitment to medicine entailed:

. . . You are in this profession as a calling, not as a business; as a calling which exacts from you at every turn self-sacrifice, devotion, love and tenderness to your fellow-men. Once you get down to a purely business level, your influence is gone and the true light of your life is dimmed. You must work in the missionary spirit, with a breadth of charity that raises you far above the petty jealousies of life.¹¹

Orientation Toward the Care of the Sick, the Dying, and the Relief of Suffering. Students have as their primary concern the caring for suffering persons. They covet for their patients

dignity, privacy, and the best of personal care. Osler urged his students never to forget the rights of patients.

Although he developed no detailed system of medical ethics, one can extrapolate from his writings three principles or basic convictions that should serve the practitioner of medicine as well as any code that has been developed. These three principles are:

(1) The affirmation that in all actions, one must treat the individual as a person and not as a thing, as an end and not a means to an end. Thus, there is recognition of a distinctive feature of persons, namely, their power of decision and in turn their freedom and dignity.

(2) That in treatment or in research situations, there ought to apply the law of reciprocity — the willingness of a person to be treated the way he or she is treating another person.

(3) In controversies involving the individual *versus* the collective, generally dispute has to be resolved in favor of the individual. To some extent, the collective is an abstraction, and the only genuine reality is the concrete individual.

Actually these moral insights represent, in a way, two great Biblical admonitions: "Thou shalt love thy neighbor as thyself," and "Whatsoever ye would that others should do to you, do ye even so to them." These two Biblical admonitions were very much a part of Osler's life.

Osler inspired his contemporaries to emulate him in his care of the lowly and down-trodden. In his pity and understanding for those in adversity, his own soul acquired strength.

Patients had absolute confidence in Osler and were certain that there would be no failure from lack of skill or interest in them. To those who had lost courage and hope, he restored the desire to fight. He was a master therapist of the psyche and the soul. Patient after patient that he treated felt the hospital room empty of all except Osler, the patient, and healing power. Osler brought insight and a brilliant ability to cope with disease; and then when everything that was human had failed, he brought something less tangible but enduring.

Today there is a major interest in examining death and dying from a variety of aspects, including the psychological, the social, the ethical, and the biological. Osler read widely in this field and collected many publications from the past. A corner of his library was given over to books on this subject.³ He was well known for his ability and willingness to keep company with the dying, to support and comfort them to

the end. He could communicate meaningfully with his patients by both direct and indirect discourse. A fine example of his communicating meaningfully and sharing himself involves his care of a little girl who was dying. The mother of the little girl wrote of the interaction:

He visited our little Janet twice every day from the middle of October until her death a month later, and these visits she looked forward to with a pathetic eagerness and joy. There would be a little tap, low down on the door which would be pushed open, and a crouching figure playing goblin would come in, and in a high pitched voice would ask if the fairy godmother was at home and could he have a bit of tea. Instantly the sick-room was turned into a fairyland, and in fairy language he would talk about the flowers, the birds, and the dolls who sat at the foot of the bed who were always greeted with, "Well, all ye loves." In the course of this he would manage to find out all he wanted to know about the little patient . . . The most exquisite moment came one cold, raw, November morning when the end was near, and he mysteriously brought out from his inside pocket a beautiful red rose carefully wrapped in paper, and told how he had watched this last rose of summer growing in his garden and how the rose had called out to him as he passed by, that she wished to go along with him to see his little lassie. That evening we all had a fairy teaparty, at a tiny tea table by the bed, Sir William talking to the rose, his little lassie, and her mother in the most exquisite way; and presently he slipped out of the room just as mysteriously as he had entered it, all crouched down on his heels; and the little girl understood that neither the fairies nor people could always have the color of a red rose in their cheeks, or stay as long as they wanted in one place, but that they nevertheless would be very happy in another home and must not let the people they left behind, particularly their parents, feel badly about it; and the little girl understood and was not unhappy.³

Community Involvement. Town-versus-gown polarizations represent an incomprehensible dichotomy for today's students. They crave active involvement in their community's agencies and programs which permit them to practice their humanity. Students have begun to break down the walls surrounding our medical training centers and involve themselves in activities beyond the center's walls. These students can be described by Osler's frequently used quotation from Thucydides who said of the Greeks, "They possessed the power of thinking before they acted, and of acting too."

Over the past several years, with research in

the ascendancy and with many full-time faculty members committed only to producing academicians, what Osler dreaded has come to pass; a professorial body remote from its profession and alienated from it. Both students and the public would welcome an Osler to nurture today's serious efforts of bringing the community and the medical center into a more productive relationship for health's sake.

Osler had a profound interest in public health and preventive medicine. He stressed the need for a proper and adequate sewerage system and a pure water supply. He played an active role in the control and prevention of illnesses such as typhoid, tuberculosis, and malaria.

In his community involvements and efforts at social reform he displayed courage and vigor. In 1901 he shook his finger at the mayor of Baltimore. The occasion was a public meeting held to call attention to public health problems in Maryland, and especially to the shocking incidence of tuberculosis in Baltimore. Here are a few sentences from his extemporaneous remarks:

We are sick to death of mayors and first branches and second branches. In heaven's name what have they done for us in the past? I can tell you what they have done for us in the thirteen years I have been here. To my positive knowledge they have paved two or three

streets east and west, and two or three streets north and south. . . . I could not point to a single other thing they have done. . . . Give us a couple or three good men and true who will run the city as a business corporation. It would not take us a year, then, Mr. Mayor, not a year, to get a start on a sewerage system and an infectious-disease hospital, and everything else that the public welfare demands.¹³

Shortly after these pointed statements in the presence of the mayor, the mayor was seen with his arm on Osler's shoulder, talking with him in a way that was earnest but also friendly.¹⁶

Because he urged his medical colleagues to participate in the total life and health of the community and set a good example of such participation, he contributed enormously to the welfare of the community through an enlightened profession influencing public opinion in matters pertaining to health, sanitation, and general hygiene.

Much of his profound influence upon the community came through active participation in medical society activities, where he urged regular attendance and greater comradeship for all members of the medical profession. To isolate oneself from the practitioners of medicine in the community because of full-time membership on a medical faculty would have been for Osler a tragic distortion of the physician's calling.

Freedom from Bondage to Materialism. Osler seemed to keep himself free from any need to love money for money's sake. One of Osler's former students at McGill, Dr E. J. A. Rogers, has stated that Osler's charity reached everyone in whom he could find some measure of sincerity and application. Osler had the greatest contempt for the doctor who made financial gain the first object of his work, and "even seemed to go so far as to think that a man could not make more than a bare living and still be an honest and competent physician."¹⁵ When Osler saw private patients, he conducted his office after the fashion of Dr James Bovell's — as fast as a fee came in from a well-to-do patient it went out to a poor one. In his lectures to his students he shared the rules which governed his life, one of which was that the poor you have always with you and you must consider them beyond all others. He often quoted Sir Thomas Browne: "No one should approach the temple of science with the soul of a money-changer." Osler's greatest example in sharing was in the giving of self, and in this

James A. Knight received the BD degree from Duke University Divinity School in 1944, before serving as Chaplain in the US Navy. Subsequently he graduated from Vanderbilt University School of Medicine, and completed residency training in psychiatry at the Tulane Service of Charity Hospital in 1958. He is certified by the American Board of Psychiatry, and attended the C. J. Jung Institute at Zurich during 1961.

Dr Knight belongs to the Academy of Psychoanalysis, American Psychiatric Association, Society for the Scientific Study of Religion, American Osler Society, has served on several editorial boards including the Journal of Clinical Psychiatry, and on other national advisory committees and societies. He has written eight books and over 50 articles and served as Dean of Medicine and Professor at Texas A & M University, 1974-77.

example his influence should speak the strongest to our students.

Permission to Live Today. Students beg of their teachers to help them find meaning and joy this moment and this day and abolish the oppressive philosophy of accepting bondage today in order to "live" tomorrow.

Osler, in his student days became acquainted with Thomas Carlyle's essay "Signs of the Times." A sentence in the essay took him by storm: "Our main business in life is not to see what lies dimly at a distance but to do what clearly lies at hand." The statement became an obsession. He used it as a knight his armor, lived by it, and quoted it often. Into each day he packed the ingredients for the full life, in the finest existential sense. When I see students totally immersed in some of the oppressive aspects of the medical curriculum and hoping that tomorrow will bring some fresh air, I confront them with the fact that they have for certainty only today and that they should take a moment to read Osler's "A Way of Life."

Addictive and Contagious Passions. Students usually have some cause or project which they embrace with addictive passion. Emotional and intellectual commitment may be broad and deep, with a touch of madness. They like to see their teachers embrace something with total abandonment. Bland persons turn them off as they did the Biblical writer who declared, "So, because you are lukewarm, and neither hot nor cold, I will spew you out of my mouth." (Rev. 3:16)

Osler had two addictive and contagious passions, the fruits of which we enjoy today: his passion for medical history and his love of great books. He blended these two passions and integrated them creatively in his medical vocation.

Osler's love of books led him not only to advise reading and collecting books but also to select special ones as gifts for colleagues, students, and medical libraries. (I get a real thrill when I discover in a medical library on the flyleaf of a rare old volume an inscription from Osler to a medical friend.) He gave stimulation and encouragement to individuals, libraries, and medical societies to expand and improve their holdings.

He encouraged the study of medical history and biography and found time in the midst of his duties, which might well have availed as an excuse from further intellectual labors, to contribute in large measure to these subjects.

In a dedicatory address given for a new building of the Boston Medical Library, he spoke these memorable words: "To study the phenomena of disease without books is to sail an uncharted sea, while to study books without patients is not to go to sea at all. Only a maker of books can appreciate the labours of others at their true value."¹⁰

Osler spent a half-hour a day reading from the classics and other great writings of the past, including the Bible. His breadth of reading was reflected in his writing and speaking. He found great models for his passions in both Browne and Burton but especially the latter who swept all known literature into the *Anatomy of Melancholy* and bound it there with what was his own. On every page is the impress of a singularly deep and original genius. On every page quotations abound from all ages and all countries.

Possibly Osler's sense of humor and love of the practical joke may have drawn strength and encouragement from the humor of his great models. It is interesting that Burton, in 1606, wrote a Latin comedy which was acted later at Christ Church, Oxford. Burton's comedy is a witty exposure of the practices of professors in the art of chicanery. The manners of a fraternity of vagabonds are portrayed with considerable humor and skill, and the lyrical portions of the play are written with a light hand.⁵

In Osler's search through the literature of the past, he sought to offer his students an encounter with their ancestors whose experiences, hopes, achievements, and mistakes had made the human condition what it was.

Recognition of a Spiritual Dimension to Life. Osler was a man of faith in an era in which science was in great conflict with religion. Osler and Sigmund Freud were contemporaries. They were heirs of a curious double legacy from the eighteenth and nineteenth centuries, philosophically speaking: eighteenth century Enlightenment and the reductive naturalism of the nineteenth century. These two traditions came into sharp conflict with the Judeo-Christian tradition, primarily because God was ruled out. Freud embraced the prevailing philosophy of this period as did many other scientists.

Although confronted by this ideological development and drawing some strengths from it, Osler held to that faith which had served him well from his earliest years — a faith

which included the sense that there is a power in the universe that is greater than the individual, that the experience of this power is of supreme value to the individual concerned, and that through this experience life acquires a new meaning, although the experience cannot be arrived at through the operation of reason. While keeping abreast of the times, he held fast to the purpose and ideals embraced in his youth and became identified as a young modern and an ancient saint. He had a splendid model in Sir Thomas Browne who, in his writings such as *Religio Medici*, combined daring scepticism with implicit faith in revelation.

In his school days at Weston, as he sat at the feet of Father William Arthur Johnson, Anglican priest and naturalist, listening to the reading of extracts from Sir Thomas Browne's *Religio Medici* or as he worked with Dr James Bovell, physician and naturalist, he absorbed some of their qualities. Their qualities lived on in Osler: the gentleness of their hearts toward suffering, their intense curiosity into natural phenomena, and their obsession with the mystical and spiritual.

Today's students, confronted by the increasingly complex ethical issues in research and patient care plus the loss of meaning or sense of alienation in the lives of their patients, would welcome an Osler to help them appreciate the spiritual dimension in the person.

Osler's colleagues and students have spoken of his *charisma*. Only when this word is defined correctly does one comprehend Osler's gift of grace: spiritual power and virtue attributed to a person who is regarded as set apart from the ordinary — set apart by reason of a special relationship to that which is considered of ultimate value.

Spiritual power, if truly genuine, has never been associated with evil. One of Osler's biographers, Edith Gittings Reid, may well have given us the real secret of Osler's influence: ". . . to those he cared for on earth he brought life. We will look back and remember that for us was the high privilege of having seen and felt power without evil — a transcendently beautiful life."¹⁴ It is hoped that our students today will be able to write of some of their professors that they saw and felt in them charismatic strength and influence that were benevolent and that contained no trace of evil.

Osler's students must have seen something

of the meaning of love and divinity in Osler's relationship with his wife. An old and intimate friend of Sir Thomas Browne, Reverend John Whitefoot, rector of Heigham, described Browne's wife with the same words with which Lady Osler could be portrayed: ". . . a lady of such symmetrical proportion to her worthy husband, both in the graces of her body and mind, that they seemed to come together by a kind of natural magnetism."⁵

Students are not oblivious to the principle that gives form and meaning to the universe or afraid to recognize the transcendent as that in humanity which goes beyond any given situation. Our students today, as they did in Osler's time, will continue to have psychological needs for spiritual direction, for a message of redemptive hope, and a kind of sanction that some things are eternal.

Great Models. Students seek great models after which to fashion their lives. They need to be shown by example how others cope with the vast and impersonal chaos of existence. They need to be exposed to persons who make education relevant by integrating compassionate study and informed conduct, by demonstrating a care and concern for what students can become, and by giving students a profound motivation for learning — the hope of becoming better persons.

Osler had the remarkable quality of profoundly influencing people both in his personal relationships and through his writings. Osler's biographical and historical addresses have been described as being the kind of literature that deeply influences people in the conduct of their lives.¹⁸

In assessing Osler's strong hold on young people, many attribute this hold to the perception in his presence of a finer side of life than is commonly seen. His keen sympathy and affection for young people enabled him to enter into their joys and sorrows, and to keep young in defiance of his years. Professor Gulland of Edinburgh captured something of the spirit of Osler in these words:

In every man he saw, and desired to see, only what was best and so brought out the best in those with whom he had to deal. One left him with the sense of moral uplift and a desire to be more worthy of his confidence and esteem Valuable though his writings are, one would rather have had an hour's talk with Osler than all his books. It was his personality and his personal radiation which gave him the immense power for good which he possessed.¹⁸

Osler fought for changes in medical education, and many constructive changes of real benefit to students and patients were achieved. His influence was exerted less in argument or controversy than in the force of example. He brought persons together through the genius of his friendship and by the way in which he lived his ideals and induced others to share them with him. Our students need more such models today to help them in their professional maturation. Osler's proudest honor was the unwritten title, "The Young Person's Friend." In his writings, care of patients, public addresses, and entertainment in his home, students always occupied a place of honor and royal friendship. At every opportune moment, he touched their lives and lent them grandeur. □

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Louisiana State University School of Medicine, New Orleans, Louisiana.



News From The Oklahoma State Department of Health

Tuberculosis in Oklahoma

There was an increase of 40 new cases of tuberculosis in Oklahoma in 1978 over 1977. In a total of 346 cases, 287 were pulmonary, and 59 extra-pulmonary. The greatest portion were over 65 years of age (34%), with the next largest group (33%) being those 45-65 years of age. Thus, those 45 and over represented 68% of all new tuberculosis reported. Of interest is that while Indians represent less than 4% of Oklahoma's population they make up 19% of the new cases in 1978. The black population represents 7% of the state's total population and 12% of the new cases. Twice as many males (212) as females (114) were diagnosed.

As of December 31, 1978, 690 tuberculosis cases were being followed on medications. In

Oklahoma the majority of tuberculosis patients are followed through the facilities of the local county health department. Even the patient of the private physician is frequently referred to the health department for tuberculosis medications and monthly evaluations for possible side effects.

The Oklahoma State Department of Health through the county health department provides these antituberculosis medications free. In addition, they interview the new case for contacts and examine those persons named to determine if they have been infected. When a person is shown to be a reactor they are referred for further medical evaluation which is available through the health department.

Should a tuberculosis patient need to be hospitalized, arrangements can be made to provide this service by calling the medical consultant in the Tuberculosis and Respiratory Disease Division at the Oklahoma State Department of Health in Oklahoma City, (405) 271-4063. The medical consultant is also available for consultation about other aspects of tuberculosis management. □

COMMUNICABLE DISEASES IN OKLAHOMA FOR JANUARY, 1979

DISEASE	JANUARY 1979	JANUARY 1978	DECEMBER 1978	Total To Date	
				1979	1978
Amebiasis	—	—	—	—	—
Brucellosis	—	—	2	—	2
Chickenpox	—	—	—	—	—
Encephalitis, Infectious	—	—	1	—	1
Gonorrhea (Use Form ODH-228)	1122	949	986	1122	949
Hepatitis, A, B, Unspecified	11	26	49	11	26
Leptospirosis	—	—	—	—	—
Malaria	—	—	—	—	—
Meningococcal Infections	2	1	2	2	1
Meningitis, Aseptic	1	4	4	1	4
Mumps	—	—	—	—	—
Rabies in Animals	11	12	22	11	12
Rheumatic Fever	—	—	—	—	—
Rocky Mountain Spotted Fever	—	—	—	—	—
Rubella	—	2	—	—	2
Rubella, Congenital Syndrome	—	—	—	—	—
Rubeola	—	4	—	—	4
Salmonellosis	15	12	53	15	12
Shigellosis	14	13	74	14	13
Syphilis, Infectious (Use Form ODH-228)	7	10	5	7	10
Tetanus	—	—	—	—	—
Tuberculosis, New Active	27	15	34	27	15
Tularemia	—	—	3	—	—
Typhoid Fever	—	—	—	—	—
Whooping Cough	—	1	—	—	1

TULSA '79

When physicians from throughout the state of Oklahoma meet in Tulsa for the 1979 Annual Meeting of the Oklahoma State Medical Association, they will have available one of the finest programs ever put together. Additionally, they will be meeting in one of the country's finest facilities . . . The Williams Plaza Center.

In a word, the program for Tulsa '79 is outstanding. For example, on Saturday, May 5, an impressive panel of experts will discuss "Socioeconomic Problems and Concerns of the Practicing Physician." Featured will be James A. Reynolds, executive editor of *Medical Economics*; W. Fred Mangan, a professional business consultant from Battle Creek, Michigan, and Oklahoma's own Roger Harrison of Roger Harrison Associates in Norman. Reynolds will discuss "Coping with Inflation and Federal Control"; Mangan will discuss "Incorporated Doctors Conserve Money"; and Harrison's topic will be "Personnel — Parasitic or Productive?"



Site of the 1979 OSMA Annual Meeting is Tulsa's new Williams Plaza Hotel.



The Williams Plaza Forum will lend a touch of elegance for those attending this year's meeting.

On Friday, May 4, a unique workshop will be conducted by Domeena Renshaw, MD, Associate Professor of Psychiatry at Loyola University Stritch School of Medicine. Dr Renshaw's topic will be "Sexual Therapy."

As always, the annual meeting will feature outstanding social events, sporting activities and the business sessions of OSMA. This year, however, there will be one additional drawing card . . . Tulsa's new Williams Plaza Center.

While the OSMA meeting will be held at the Williams Plaza Hotel, the adjacent Williams Plaza Forum will offer an additional attraction. The Forum's elegant shops and restaurants and its unique skating rink add a new dimension to the annual meeting . . . Tulsa '79.

The following is the scientific program for Tulsa '79 as well as other pertinent information. To register for this meeting, watch for the direct mail pieces you will receive.

Thursday, May 3, 1979

COAGULOPATHIES

George W. Schnetzer, III, MD, Tulsa, Presiding

- 2:00 pm Screening and Clinical Evaluation of Bleeding Tendencies**
Dale E. Van Wormer, MD, Tulsa
- 2:30 pm Case Presentation**
- 2:45 pm Drugs and Bleeding Disorders**
John A. Penner, MD, Professor of Internal Medicine, University of Michigan Medical School, Ann Arbor, Michigan
- 3:15 pm Case Presentation**
- 3:30 pm Intermission**
- 3:45 pm DIC and Bleeding in the Setting of Systemic Disease**
Fletcher B. Taylor, MD, Oklahoma City
- 4:15 pm Case Presentation**
- 4:30 pm Panel Discussion on Coagulopathies**
Participants: Doctors Penner, Van Wormer, Taylor and Schnetzer

UPDATE ON ANTIBIOTICS

Eric L. Westerman, MD, Tulsa, Presiding

- 2:00 pm Antibiotic Usage in the Immunosuppressed Patient**
Gerald Bodey, MD, Professor of Medicine, M.D. Anderson Hospital & Tumor Institute, Houston, Texas
- 2:50 pm Discussion, Questions and Answers**
- 3:00 pm Surgical Prophylaxis**
Ronald L. Nichols, MD, Henderson Professor of Surgery, Tulane University School of Medicine, New Orleans, Louisiana
- 3:50 pm Discussion, Questions and Answers**
- 4:00 pm Intermission**
- 4:10 pm Cephalosporin Antibiotics**
David L. Smith, MD, Oklahoma City
- 4:40 pm Discussion, Questions and Answers**

Friday, May 4, 1979

THE PHYSICIAN AND PROBLEMS OF THE ADOLESCENT

Robert K. Endres, MD, Tulsa, Presiding

- 9:00 am Adolescent Health—How Good Is It?**
David W. Kaplan, MD, Oklahoma City
- 9:20 am Practical Psychodynamic Aspects of Adolescence**
William A. Long, MD, Clinical Professor of Pediatrics, University of Mississippi School of Medicine, Jackson, Mississippi
- 9:40 am Talking With (not to) The Adolescent Patient**
David W. Kaplan, MD, Oklahoma City
- 10:00 am Intermission**
- 10:15 am Assessing the Adolescent's Family Relationships**
William A. Long, MD, Jackson, Mississippi
- 10:35 am Adolescent Sexuality and Teenage Pregnancy**
David W. Kaplan, MD, Oklahoma City



Dr Tom E. Nesbitt, president of the American Medical Association and an Oklahoma native, will be the speaker at the OSMA luncheon on Friday, May 4.



Dr Robin Cook, author of the best selling book, COMA, will be the featured speaker at the President's Inaugural Dinner on Friday evening, May 4.

EXHIBITS

Commercial and scientific exhibits will be on display throughout the meeting. The Exhibit Area is located adjacent to the Williams Plaza Hotel on the ground level. All physicians are encouraged to visit the exhibit area.

PHOTO CONTEST

A photo contest and exhibition will be conducted during the meeting. Photos will be on display in the Williams Plaza Hotel Exhibit Area. The photograph judged "Best of Show" will be awarded a \$100 prize. First, second and third place awards of \$75, \$50 and \$25 will be given for black-and-white and color prints. Physicians wishing to enter photographs should bring them to the Williams Plaza Hotel registration desk on May 3 or mail them to OSMA Headquarters postmarked no later than April 27. All photos

should be matted on stiff backing; the minimum acceptable size is 5×7" and maximum acceptable size is 16×20". Entries are limited to five prints per physician or spouse. Slides and transparencies cannot be accepted.

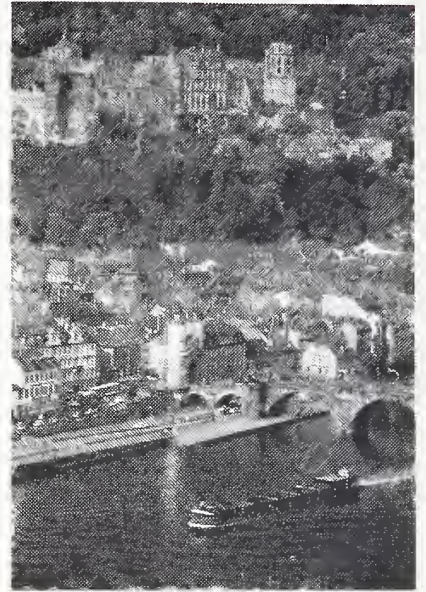
REGISTRATION

The registration desk will be located on the ground level of the Williams Plaza Hotel. It will be open from 8:00 am to 5:00 pm Thursday, May 3, from 8:00 am to 5:00 pm Friday, May 4, and from 8:00 am until 10:00 am Saturday, May 5. Advance registration may be made by ordering tickets to OSMA luncheons and social functions using a special ticket envelope. This envelope will be included in mailings after March 21. Room reservations may be made by returning the special room reservation card provided by the Williams Plaza Hotel. There is no registration fee for OSMA members ☐

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Board of Regents Name OU-TMC Dean

The OU Board of Regents has appointed a California physician as dean of the University of Oklahoma Tulsa Medical College.

Edward J. Tomsovic, MD, 56, adjunct professor of pediatrics and medical director of the University of California Medical Center, will assume his Tulsa duties in April, 1979.

"Dr Tomsovic comes to us from a community-based medical school which makes him ideally qualified for the Tulsa position," OU Health Sciences Center Provost, Dr William G. Thurman, said.

Dr Tomsovic hopes to assist OU-TMC to become prominent in training programs involving primary care specialties and community medicine.

"We are looking forward to a long tenure by Dr Tomsovic as dean of the Tulsa Medical College and believe his leadership will bring continued stability and strength to the relationship between the college and local hospitals," Dr Thurman said.

Dr Tomsovic succeeds James E. Lewis, PhD, who resigned as dean September 1, 1978.

A retired army colonel, Dr Tomsovic is a

graduate of the University of California and the University of California Medical School, San Francisco. He interned at San Francisco's Franklin Hospital and received his residency training there and at Bellevue Hospital, New York. □

AMA Schedules Workshop On Chronic Mentally Ill

The American Medical Association will sponsor a workshop on comprehensive care for patients with severe mental disability May 10-11 at the Palmer House in Chicago.

"Physicians and Chronic Mental Patients: Potentials for Community Based Care" will focus on identifying priorities in medical education.

Professionals will examine the special needs of the patient, patterns and deficiencies in current service deliveries, economic considerations and major obstacles to treatment and continuity of care.

For additional information, contact Suellen Muldoon, AMA associate director of the Department of Mental Health, 535 N. Dearborn Street, Chicago, Illinois, 60610. □



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Senate Approves Optometry Bill; OSMA Council Reviews Legislation

Senate Bill 285 that would allow optometrists to use certain diagnostic drugs in examining patients' eyes passed overwhelmingly in the Oklahoma Senate and was sent to the House.

The bill, introduced by Senator Rodger Randall and Rep. Charles Morgan, would require optometrists to undergo a special training program in general and ocular pharmacology before certification.

When SB 285 was read for the third time, the roll call results were as follows: Aye—Berrong, Birdsong, Boatner, Cain, Capps, Cate, Clifton, Combs, Crow, Crutcher, Cullison, Cummins, Dahl, Field, Giles, Green, Howard, Howell, Johnson, Johnston, Keller, Lamb, Landis, Lane, Luton, McDaniel, Martin, Miller, Murphy, Pierce, Rozell, Schuelein, Stipe, Taliaferro, Terrill, Tinsley and Vann.

Senators voting nay were: Keating, McCune, Nickles, Porter, Smith, Watson and Wolfe; excused were: Kilpatrick, Randle, York and Young.

The OSMA Legislative Committee and Lyle Kelsey, OSMA Legislature Liaison, reviewed the following bills in the February Council on Governmental Activities meeting.

House Bill 1200 — Representative Frank Harbin . . . would amend the drug substitution law to include an option for the physician to prevent substitution when the physician indicated by writing dispense as written (DAW) on the prescription or indicated verbally to the pharmacist.

House Bill 1108 — Representative Rollin Reimer . . . would define an accredited school or college of chiropractic and would require endorsement by the Oklahoma Board of Chiropractic Examiners.

Senate Bill 158 — Senator Phil Watson . . . appears to mandate that every hospital adopt written criteria for granting staff privileges to podiatrists and that the administrator of each hospital accept for consideration applications from podiatrists seeking staff privileges.

Senate Bill 184 — Senator Phil Watson . . . modifies provisions for licensure renewal for practicing podiatrists to include certain continuing education requirements.

Senate Bill 257 — Senator Rodger Randall and Representative Charles Cleveland . . .

"Oklahoma Emergency Telephone Act" . . . would establish a statewide emergency telephone number.

House Bill 1230 — Representative Henry . . . "Emergency Medical Service Systems Fund Act" . . . would appropriate funds to train emergency medical personnel and establish administration and coordination of emergency medical services in Oklahoma.

Senate Bill 143 — Senator Ernest Martin and Representative Hannah Atkins . . . would prohibit child day care centers from admitting children older than two months who have not been immunized against diphtheria, pertussis, tetanus, measles, rubella and poliomyelitis. □

AMA Objects To Broadcast

The American Medical Association has strongly objected to the treatment given to the health care cost issue during an American Broadcasting Company national news series in February.

AMA Executive Vice-President Dr James H. Sammons sent a telegram to the ABC president saying the broadcast omitted the following key points:

- The number of people involved in the delivery of care has grown with new technology. Pay scales which were lower than average in the 1950s and early 1960s have now achieved parity with other occupations with comparable skills.

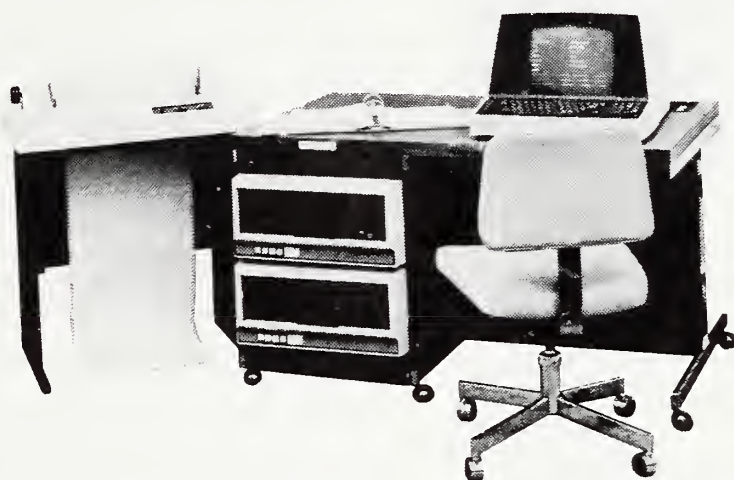
- Reimbursement of health care providers by federal and state programs has not kept pace with rising delivery costs, with the result that beneficiaries are being asked to assume a greater share of costs.

- The AMA, the American Hospital Association and the Federation of American Hospitals have sponsored a voluntary effort that has reduced the increase in hospital costs by nearly three percent over the past year.

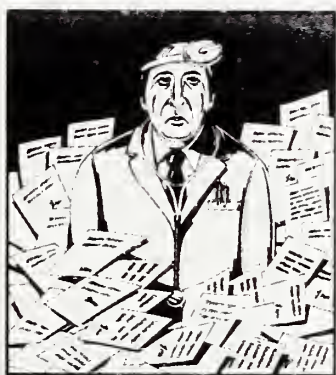
- The extraordinary rate of inflation that has impacted especially heavily on the health industry. Government action to reduce the inflationary rate would also reduce the rate of growth of health care costs.

Dr Sammons expressed concern about the ABC series that seemed to indicate health care providers were insensitive to the cost issue. □

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James B. Eskridge, MD, presented an award of appreciation for Robert M. Bird, MD, to Dr Tom Lynn, dean of the OU Medical School. The OSMA House of Delegates voted on the award in 1975, however, Dr Bird had resigned his position as dean of the OU Medical School and had moved to Maryland. The plaque was presented posthumously at the Oklahoma County Medical Society February meeting. □

OSMA Plans Photo Contest

A photo contest and exhibition will be conducted at the OSMA annual meeting. The photographs will be displayed and judged May 3 to 5 in Tulsa's Williams Plaza Hotel Exhibit area.

The "Best of Show" photograph will be awarded \$100. First, second and third place awards of \$75, \$50 and \$25 will be given for black and white and color prints.

Photos should be matted on stiff backing. Minimum size is 5 x 7 inches and maximum size is 16 x 20 inches. Subject matter can be portrait, scenic, general interest or scientific.

Exhibition facilities limit the entries to five prints per member or spouse. Slides and transparencies cannot be accepted.

Prints may be brought to the Williams Plaza Hotel registration desk on May 3 or postmarked no later than April 27 and mailed to OSMA offices. The photographer's name should be attached to the back of each entry.

All entries should be picked up at the Williams Plaza Hotel registration desk Saturday, May 5 at the conclusion of the show. □

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National Commerce Presents Inflation Solutions To Congress

The US Chamber of Commerce has presented a list of inflation-fighting recommendations to Congress and the White House. Focusing on the shortcomings of the federal government, the recommendations to Congress are:

—Limit the growth of federal spending to seven per cent for fiscal 1980, or a total of \$527 billion.

—Provide across-the-board tax relief for all taxpayers so that the growth of federal tax receipts does not increase at double-digit rates.

—Reform the tax structure to encourage adequate investment and depreciate allowances more nearly equal to the cost of replacing equipment and buildings.

—Reduce the federal deficit below \$25 billion for fiscal 1980.

—Defer the 1980 and 1981 increases in the federal minimum wage to provide a wage differential for young people. A 15 per cent youth differential would lower consumer prices and increase purchasing power and the number of jobs available.

—Repeal the Davis-Bacon Act. The General Accounting Office says the Davis-Bacon Act adds \$715 million a year to US construction costs.

—Reform federal government employee pay policy by requiring a complete overhaul of the Federal Pay Comparability Act.

—Require federal employees to contribute to the social security program. This could slow down the rise in social security taxes paid by employers and result in lower consumer prices, thus increasing consumer purchasing power.

—Strengthen US competitiveness in world trade to reduce inflationary pressures.

—Mandate economic impact statements for all proposed legislation and regulations and reserve veto power over proposed regulations.

—Review all federal programs and regulations periodically. Those whose continued existence cannot be justified will be eliminated. □



After several delays, construction began on the OSMA building in late February. Located behind the main OSMA offices, the building will house the Oklahoma Foundation for Peer Review. Contractors expect to have the building ready for occupancy some time in July. □

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OSMA Past-President Stays Up With Trends at 94

By Melinda Turner
Publications Specialist

"If I don't live to be 100, I will be disappointed."

So says Henry K. Speed, MD, the oldest living past-president of the Oklahoma State Medical Association.

The retired Sayre physician is still apologizing to his physician for being so healthy at 94. He attributes his longevity to abstaining from liquor and cigarettes and he still drives his Cadillac to the office.

"I won't sell or rent my office to anyone. I just won't. I sold my cattle and houses too quick. Now I wish I had more to do. I don't like television, too many ads."

Under his leadership in 1938, the OSMA was instrumental in raising the standards of the medical profession, employing the first association administrator and organizing a central office in Oklahoma City.

"We helped pass the Medical Practice Act and Reregistration Act. I've been impressed with the volume of the present day association. When I was president, there were only 300 members, and they were scattered all over the state," Dr Speed said.

He believes the national health insurance issue facing the association will be endorsed in a modified form.

"I wish they would let people do as they please and not force it (national health insurance) on them," he said.

Dr Speed recalled medical issues at the turn of the century when he was a graduate of one of the first four-year medical degree programs. He was graduated from the University of Texas Medical School and interned at John Seeley Hospital in Galveston.

He administered the first diphtheria vaccine given in Beckham County. Until then, smallpox was the only vaccine available.

"When penicillin came out, we didn't know what it would cure. I remember the first patient I tried it on had gonorrhea. It cleared him right up," he recalled.

The opportunity to be a pioneer is not the reason Dr Speed gives for launching a career that spanned six decades. When he was six or seven, he had a bunch of boils on his head.



Jessie and Dr Henry K. Speed have participated in the progress of Oklahoma medicine since the turn of the century. Married for 70 years, they recall living in three room houses, rearing three sons and sharing the medical responsibilities. The retired Sayre physician was the first to administer the diphtheria vaccine and penicillin in Beckham County.

The country doctor who lanced them was courting Dr Speeds' older sister.

"He asked me what I wanted to be when I grew up and to please him I said 'a doctor.' From there on out it was just assumed I would be a doctor," he said.

Dr Speed began his career in Mangum in 1907 with Dr Fowler Border. Later he moved his practice to Sayre.

"My daddy told me to never rent, so I bought a home for \$1,510 and married the former Jessie Harness. She didn't know what she was in for," Dr Speed said.

The 90-year-old Mrs Speed recalled living in three room houses, rearing three sons, and being the doctor's nurse and telephone operator.

"Doctors' wives now can hardly believe what we used to do for our husbands. When he was out on a call, he would ring me to find out if another call had come in while he was out," she said. It often saved him unnecessary trips.

Dr Speed recalls that he made housecalls in a horse and buggy in the early days of his practice. He wore out 25 brand new Model T Fords before graduating to a Chevrolet, then a Buick and ultimately a Cadillac.

Married for 70 years, the Speeds have eight grandchildren, 13 great-grandchildren and one in "escrow." A son and two grandsons are physicians. □

"Oklahoma Children's Memorial Hospital Week" To Be Observed

Transformation of the old "Crippled Children's Hospital" in Oklahoma City into a modern, full-service medical complex for persons from birth to 21 years of age will be celebrated April 18-21, 1979.

The dates have been designated "Oklahoma Children's Memorial Hospital Week" to observe the 50th anniversary of the hospital and the completion of new facilities.

One feature of these April events will be the dedication of the new Ben H. Nicholson Tower in honor of the late Ben H. Nicholson, MD. A prominent Oklahoma City pediatrician, Dr Nicholson served as Editor-in-Chief of *The Journal of the Oklahoma State Medical Association* from September, 1954 to June, 1962 and again from August, 1968 until his death in September, 1968.

Donald B. Halverstadt, MD, chief of staff, announced a series of events are planned to show the new hospital and explain its unique services to laymen and civic leaders, public officials, physicians and others in the health professions.

The feature event for physicians will be a symposium "Current Concepts in Children's Medicine and Surgery," April 20-21 in the newly completed Continuing Education Center in the hospital's Ben H. Nicholson Tower. The symposium has been certified for nine credit hours in Category 1 for the Physician's Recognition Award of the American Medical Association.

A \$25 registration fee will be charged for the symposium. The fee includes a luncheon Friday, April 20, with tickets assured persons who pre-register.

Further information about any of the week's events may be obtained by calling Doctor Halverstadt at (405) 271-5911. □



Dedication of the new Ben H. Nicholson Tower (far left) will be observed during the "Oklahoma Children's Memorial Hospital Week."

Tulsa Endorses Floyd F. Miller, MD

Floyd F. Miller, MD, Tulsa, has received the unanimous endorsement of Tulsa County Medical Society as a candidate for president-elect of the Oklahoma State Medical Association.

Dr Miller will be nominated for the position at the May 3-5 OSMA Annual Meeting. He is currently the vice-president of the OSMA and president of the Oklahoma Allergy Society.

A graduate of the University of Oklahoma College of Medicine, Dr Miller specializes in allergy. He entered practice in Tulsa in 1963.

He has served as president of the Tulsa County Medical Society, president of Oklahoma Society of Internal Medicine and chairman of the OSMA Council on Medical Education.

Dr Miller has been an OSMA delegate and general chairman of the OSMA Annual Meeting. A member of the clinical faculty of the University of Oklahoma, he is a Diplomate of the American Board of Internal Medicine and sub-specialty board in Allergy, and a Fellow of the American College of Physicians. □



Dr David B. Brinker, an Oklahoma City ophthalmologist, was one of 14 finalists in the 1978 Kodak International Newspaper Snap Shot Awards. Dr Brinker's photograph of a Sherpa camp with the Annapurna and Machapuchare mountains (Himalayas) towering behind it, was selected from more than 350,000 photographs. □

reimburse physicians for services rendered to eligible persons through the state board of social services. Eligibility and provider reimbursement would be based upon a "sliding-fee scale" dependent on income, medical expenses and family size.

If appropriated state funds were inadequate to fully reimburse each claim, reimbursement would be made on a per capita basis through participating hospitals and health clinics.

The Indiana proposal established a program to provide state assistance to eligible persons to meet expenses of catastrophic illness. The state would pay 90 per cent of expenses incurred in a 12-month period when such expenses are greater than 40 per cent of an individual's total household income.

The Massachusetts bill would require insurers to offer a comprehensive health insurance plan meeting prescribed minimum standards. An arrangement would be created between health insurers transacting business in the state to extend coverage to individuals unable to obtain insurance protection. Reimbursement for services rendered or prescribed by a physician would be based on the prevailing charge in the locality. □

National State Governments Plan National Health Programs

If at first the government does not succeed with a national health insurance program, it will try, try again.

This time the resurrected issue has taken the form of Health Care on the national level and catastrophic NHI at the state level.

The proposed federal insurance program corrects flaws in private health insurance plans by setting federal standards to equalize the private plans with the HealthCare plan.

Individuals enrolled in either HealthCare or private plans are covered by the same comprehensive benefits package. They receive equal treatment by health service providers since all insurance plans reimburse providers at the same rates.

State legislatures took a cue from the national catastrophic health insurance plan proposed by Senator Russell B. Long, chairman of Senate Finance Committee. Colorado, Indiana and Massachusetts have introduced comprehensive catastrophic health insurance legislation in 1979. The Colorado bill would



The Oklahoma State Medical Association Auxiliary's Day at the Legislature was a success, says Mrs Margaret Eskridge, chairwoman of the Auxiliary State Legislative Committee. The six women legislators urged the 100 physicians' wives to get involved in politics. "It is not easy to pass a bill about displaced homemakers or teenage pregnancy when 80 per cent of the lawmakers cannot relate to those problems," Norman Representative Clela Deatherage said. □

DEATHS

PAUL J. OTTIS, MD
1921-1979

A native and life-time resident of Okarche, Oklahoma, Paul J. Ottis, MD, died in Oklahoma City on February 12, 1979. Ottis, a general practitioner, was graduated from the University of Oklahoma College of Medicine in 1945. He was chief of staff of the Okarche Memorial Hospital and a member of his county medical society, the OSMA and the American Medical Association.

JUDAH K. LEE, MD
1898-1979

A former Tulsa physician, Judah K. Lee, MD, died in West Palm Beach, Florida, February 16, 1979. A native of Lithuania, Dr Lee was graduated from the University of Oklahoma College of Medicine in 1923. The Oklahoma State

Medical Association awarded him a Life Membership in 1970. Dr Lee moved to Florida after his retirement last year.

NEWELL C. GADDIS, MD
1919-1978

Newell C. Gaddis, MD, 59, medical director of Hissom Memorial Center, Sand Springs, died on December 27, 1978. A brother of John W. Gaddis, MD, Tulsa, Dr Gaddis was born in Baltimore, Maryland. He was graduated from Northwestern University Medical School in 1945. Following service in the United States Army, he established his practice in Tipton, Oklahoma. Dr Gaddis moved to Tulsa in 1949 where he limited his practice to internal medicine until 1965. He then became medical director of the Hissom Memorial Center. □

Blues' Phase Out Diagnostic Tests

Blue Cross and Blue Shield have recommended that member plans pay for routine diagnostic tests for non-surgical admissions to a hospital only when the tests are specifically ordered by a physician.

The Blues' Associations Medical Necessity Project phased out the surgical and diagnostic procedures considered to be of doubtful value by the American College of Physicians and the College of American Pathologists.

"Physicians and other professionals have the right to order those tests or perform those procedures which, in their judgment, are beneficial to the patient. It is also important, however, to recognize that plans are obligated to pay only for those covered services which are medically necessary for the treatment and management of the patient's condition," Lawrence C. Morris, senior vice-president of the Blues Associations, said.

Deleted tests include: amylase, blood isozymes, electrophoretic analyses, chromium (blood), skin tests for cat scratch fever, lymphopathia venereum, actinomycosis, brucellosis, leptospirosis, psittacosis, and trichinosis.

Other diagnostic tests considered unnecessary are: circulation time, cephalin flocculation, congo red (blood), hormones, (adrenocorticotropin quantitative animal tests, adrenocorticotropin quantitative bioassay), thymol turbidity (blood), calcium, starch, chymo-

trypsin, analysis of duodenal contents, gastric analysis pepsin, gastric analysis, (tubeless), autogenous vaccine, calcium saturation clotting time, capillary fragility test and colloidal gold. □

OU-TMC Starts Residency Training

A Bartlesville Family Practice Residency Program will begin training residents in July. It is the third University of Oklahoma "satellite" program for training family practice physicians in non-metropolitan areas of the state.

Roger Good, MD, chairman of the OU-Tulsa Medical College Family Practice Department, has appointed Bill Fesler, MD, a Bartlesville physician, to direct the residency program.

A 1970 OU graduate, Dr Fesler practiced at the Cannon Air Force Base in New Mexico from 1971 to 1974. He plans to keep his practice on a part-time basis.

Local doctors assisting Dr Fesler will be Ronald L. Hay, MD, and William J. Carter, MD.

Four residents will be in training when the program is fully operational, according to Dr Fesler. Two residents will start in July, 1979.

A similar residency program has been in operation in Enid since July, 1976 and in Shawnee, since July, 1977.

Satellite residency programs are designed to train family doctors for the more sparsely populated areas of Oklahoma. □

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TO THE INDIVIDUAL WHO SUBLETS my office in midtown Oklahoma City, an introduction to my patients if compatible, plus the gift of some office furnishings and the opportunity to purchase the rest. Please reply to P.O. Box 18592, Oklahoma City, Oklahoma 73118. □

Hospitals Today

Years ago — before it was recognized that physicians are such poor businessmen — most hospitals were managed by physicians. Even though there were administrators — some of whom were nurses or accountants or personnel directors — the main functions of hospitals were determined by physicians. The policies of hospitals were established by physicians. The rules and regulations pertaining to hospitals were written by physicians. When money was available, physicians decided how it would be spent and whether old equipment would be replaced, new equipment purchased or if more nurses, orderlies, cooks, clerks or janitors would be hired. When budgets had to be trimmed, physicians decided which services would be curtailed and which employees would be dismissed. Few decisions concerning any aspect of hospital operations were made without the advice and approval of the hospital's staff physicians.

Today things are different. Hospitals are not run by physicians today. They are not handicapped by the ineptness of physicians. As a matter of fact most hospitals today seem to function totally without the advice or direction of any physicians. Truth is, the governance of most hospitals today frequently ignores the suggestions which are volunteered by its timorous professional staff. All decisions pertaining to the functions of today's hospitals are made by non-physicians, most of whom are laymen who don't know come-here from siccum about patient care. Hospital boards are populated by "successful businessmen, community leaders, articulate consumers, concerned citizens," and one or two physicians whose presence evokes a response of head-patting tolerance from the

other board members. Unfortunately, comments and suggestions made by these token pets evoke no response at all except when such suggestions bear directly on the financial aspects of the hospital.

Hospitals today are managed by non-physician administrators who also know little or nothing about medicine (and less about patient care) and who are hired by non-physicians whose qualifications for the role are obscure at best, antithetical at worst. The hospital administrator answers to his employers who evaluate his effectiveness only in terms of fiscal affairs while the quality of patient care available in the hospital is appraised in various vague and always remote ways. "Quality-of-care" is a term which never appears on the financial statement. It is not a line-item on the budget or an entry on the balance sheet or the statement of cash flow. It is merely a catch-phrase uttered occasionally by malcontent physicians and nurses who don't appreciate or understand the complexities of hospital-management today.

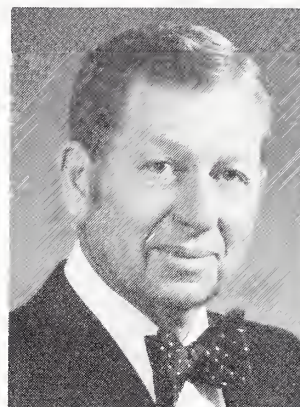
Since physicians no longer manage hospitals, everything is much better. The cost of care is less; the amount of care is greater; the distribution of care is broader; the shortage of nurses has been relieved. And patients are much happier about their entire experience in the hospital.

The management of hospitals today is so much improved, it is now obvious that literal Utopia can be realized in the future — when physicians can be eliminated altogether. They *are* poor businessmen — and *such* a bother. With physicians out of the picture entirely, the problems of patient care will be greatly reduced and, with that little annoyance out of the way, every hospital can be serene and solvent.

MRJ

"For everything there is a season and a time for every matter . . ."

The OSMA has been fortunate to have had a procession of competent and capable leaders. That anyone should have the temerity to follow in their footsteps is a matter of amazement. With quiet confidence and a sense of humor Past-President Marvin Margo has given us a very good year. With his consent I shall lean heavily on him. For those of you who serve actively in the OSMA, this is a recognition of personal indebtedness. We are also most appreciative of our well organized executive staff which under the leadership of David Bickham has already been of tremendous assistance. To each of you as members, a very special appreciation for your friendship and the privilege of this opportunity.



This is a troublesome time. The problems involved in the practice of medicine are escalating. The question might well be asked, what is required of us as physicians? There is no easy answer. There are guidelines. We must be diligent in the pursuit to provide the best possible medical care for our patients. We must be vigilant that the practice of medicine does not deteriorate under any forced routine or excess of regulation.

To place this in perspective, one only needs to remember the admonition of Micah. "To do justly, to love mercy, and to walk humbly with thy God."

Wm. M. Leebron, M.D.

The Hypophosphatemic Syndrome

SOLOMON PAPPER, MD

Hypophosphatemia is a serious life-threatening condition involving many organ systems. A patient with no sign of hypophosphatemia on admission, may develop it afterwards. The physician recognizing the conditions likely to predispose the patient to this development can make phosphorus available early. Once severe hypophosphatemia exists, treatment, with awareness of the hazards and contraindications to intravenous phosphate are important.

Severe hypophosphatemia (<1.0 mg/100 ml) is a serious life-threatening condition involving many organ systems. It is seen most commonly in alcoholism, diabetes mellitus, gastrointestinal binding of phosphates by antacids, and hyperalimentation. The diverse clinical manifestations may well be attributable to deficiency of adenosine triphosphate (ATP) and its impact on cellular integrity.

Investigation into the importance of serum phosphorus particularly in diabetic ketoacidosis, was well under way in the 1940's.

This concern with serum phosphorus in clinical medicine was sidetracked by the advent of the flame photometer in the 1945-50 period. The latter development generated an explosive interest in sodium and potassium metabolism instead. An interest in serum phosphorus was reconstituted in the late 1960's when normal subjects receiving a phosphorus deficient diet were noted to develop anorexia, weakness, and bone pain. They became symptomatic when the serum phosphorus level was below 1.0 mg/100 ml. At the same time, hypercalciuria also occurred. All symptoms improved rapidly with repletion. More recently the seriousness as well as commonness of the problem gained greater recognition.

SUMMARY OF PHOSPHORUS METABOLISM

Phosphorus is the major intracellular anion with an average concentration of 100 millimoles (mM) of phosphate per liter. Eighty percent is in bone, 10% in skeletal muscle and 10% in other organs. Although most phosphorus is in the organic form, the small amount that is inorganic is the source of adenosine triphosphate (ATP). Phosphorus, therefore, is critically involved in virtually all anabolic and catabolic processes: enzyme regulation; energy transformation and storage; the delivery of oxygen by the level of 2, 3-diphosphoglycerate (2, 3-DPG) and ATP in red blood cells. In addition to these activities, phosphorus is also involved in the defense

From the Department of Medicine, University of Oklahoma Health Sciences Center and Medical Service, Veterans Administration Medical Center, Oklahoma City.

Syndrome / PAPPER

against infection and in the urinary buffering of hydrogen ion.

In normal adults, the serum phosphorus concentration ranges from 2.7 to 4.5 mg/100 ml (0.9 to 1.5 mM of phosphate per liter). The diet normally contains approximately one gram of phosphorus daily.

A reduction in serum phosphorus concentration does not necessarily indicate body phosphorus depletion, and conversely, depletion of body phosphorus is not necessarily accompanied by hypophosphatemia. This is the same situation which obtains for potassium and magnesium—important intracellular cations. However, there is reason to think that the low serum level with or without depletion of body phosphorus, is the cause of clinical abnormalities.

ETIOLOGY

There are many causes of mild to moderate hypophosphatemia, ie, 1.0 to 2.5 mg/100 ml. But the clinical manifestations, if any, are not defined at these levels of serum phosphorus concentration. The clinical features are better understood in instances of severe hypophosphatemia which are defined in this discourse as <1.0 mg/100 ml.

The most common causes of severe hypophosphatemia are:

1. *Alcoholism*: In alcohol addicts, hypophosphatemia may in part be due to a variety of causes — undernutrition, diarrhea, vomiting, and the ingestion of antacids which bind phosphate in the gastrointestinal tract. There is also experimental reason to suspect a possible role of alcohol, magnesium depletion, starva-

tion, ketosis, and hypocalcemia in producing phosphaturia which might serve to further lower the serum phosphorus levels. When the patient arrives in the hospital, the administration of carbohydrates stimulates secretion of insulin and an intracellular movement of phosphate, thus lowering serum concentration further.

2. *Diabetic ketoacidosis*: Acidosis itself in the catabolic state may cause marked phosphaturia and consequent hypophosphatemia. In the case of diabetes this is markedly exaggerated by the intracellular movement of phosphorus when treatment with insulin is begun.

3. *Hyperalimentation* without adequate administration of phosphorus.

4. *The binding of phosphorus* in the gastrointestinal tract by the use of antacid gels.

Less commonly, severe hypophosphatemia results from:

1. Hypophosphatemia may occur during the recovery phase following severe burns or when refeeding a malnourished individual. Although there is speculation about the mechanism of the hypophosphatemia in these instances, it remains unknown.

2. Severe respiratory alkalosis is accompanied by an increase of intracellular pH which is followed by glycolysis and an increased intracellular shift of phosphorus to form phosphorylated carbohydrates. The intracellular shift results in hypophosphatemia. Metabolic alkalosis does not result in as much lowering of serum phosphorus, in part because

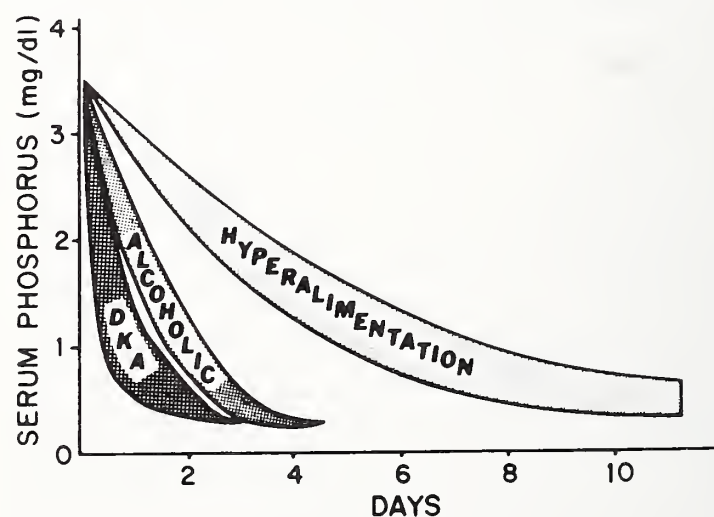


Fig 1. Approximate time when severe hypophosphatemia appears during treatment for diabetic ketoacidosis (DKA), alcohol withdrawal and hyperalimentation. From Knochel, J.P., *Archives of Internal Medicine* 137: 203-220, Copyright 1977, American Medical Association. Published with permission.

Solomon Papper, MD, was graduated from the New York University College of Medicine and specializes in internal medicine and nephrology. He is presently Distinguished Professor and Head of the Department of Medicine at the University of Oklahoma Health Sciences Center. Among his medical affiliations are the Association of American Physicians, the American Society for Clinical Investigation and the American Federation for Clinical Research. Dr Papper is a Fellow of the American College of Physicians and Governor of the Oklahoma Region of the American College of Physicians.

TABLE 1

Organ System	Abnormality	Clinical Manifestations
1. Hematologic	Red blood cell membrane White blood cell phagocytosis Platelet function	Hemolytic anemia Infection ?
2. Muscular	Muscle membrane decreased potential	Rhabdomyolysis
3. Skeletal	Phosphate loss from bone	Demineralization
4. Central Nervous System	?	Encephalopathy
5. Cardiovascular	? Decreased membrane potential	Decreased myocardial contractility
6. Pulmonary	Muscle weakness ↓ 2, 3-DPG	Respiratory failure ? Decreased tissue oxygenation
7. Endocrine	Hypophosphatemia	Decreased parathyroid hormone

bicarbonate is less diffusible than carbon dioxide with little increase in intracellular pH.

CLINICAL FEATURES

It is important to recognize that especially in diabetic ketoacidosis, alcohol addiction, and hyperalimentation the severe hypophosphatemia may not be evident on admission. Rather there is often a delay determined both by the degree of previous phosphate depletion and the institution of treatment that results in an intracellular shift of phosphorus. (Fig 1)

The clinical manifestations of severe hypophosphatemia may be divided by organ systems according to the known consequences of a reduction in serum phosphorus concentration. (Table 1)

1. *Hematologic*: When ATP levels are less than 15% of normal, *hemolysis* may occur. It has also been well demonstrated that hypophosphatemia is associated with striking impairment in white blood cell phagocytic activity. This may be an important reason for the increased incidence of *infection*. Platelet dysfunction has been demonstrated in hypophosphatemia, but in man evidences of bleeding are less prominent than in the experimental animal.

2. *Musculo-skeletal system*: There is disruption of the membrane of skeletal muscle resulting in *rhabdomyolysis*. Under these circumstances, the serum creatine phosphokinase (CPK) activity will rise sharply one-two days after the serum phosphate level reaches ap-

proximately 1.0 mg/100 ml. Rhabdomyolysis may be asymptomatic or associated with severe muscular symptoms. In some instances the liberation of myoglobin is followed by the development of acute tubular necrosis. The relationship of this entity to "alcoholic myopathy" needs more definition. In addition, since most of the phosphorus in the body — approximately 80% — is contained in bone, reduction in serum phosphorus concentration is associated with a *demineralization* of bone.

3. *Central nervous system* dysfunction occurs secondary to hypophosphatemia and accounts for the common appearance of metabolic *encephalopathy* including confusion, coma and seizures. The absence of characteristic hallucinations may help distinguish this syndrome from delirium tremens in an alcohol addict.

4. *Cardiovascular manifestations* include *decreased myocardial contractility* following the development of hypophosphatemia. It is possible that this contributes to the development of congestive heart failure. The impairment of cardiac function is reversible with the repletion of phosphorus.

5. *Pulmonary*: There is evidence of *respiratory failure* developing as a consequence of severe hypophosphatemia. In part this is due to decreased strength of the muscles of respiration. The decrease in 2,3-DPG results in increased oxyhemoglobin affinity. Although theoretically this may result in impaired tissue oxygenation, the evidence is not firm that this occurs to a clinically significant degree.

6. *Endocrine*: The hypophosphatemia is associated with a marked *reduction in parathyroid hormone activity*.

TREATMENT

It is obviously important to prevent hypophosphatemia whenever possible. This is best accomplished by: recognizing the causes; knowing that its onset may be delayed and follow the institution of treatment; and by making certain that availability of phosphorus occurs early.

The treatment of severe hypophosphatemia, once it exists, is not on a firmly established basis. If the patient can take phosphorus by mouth, then milk is an excellent supply of the anion. When it needs to be given parenterally, as it often does, precise recommendations cannot be made. Therefore, what will be presented now is my present view of such parenteral repletion therapy. It is based on the premise that

the normal daily requirement of phosphate is 0.15 millimoles (mM) per kilogram per day. In a 70 kg man this means the normal daily requirement is approximately 10mM of phosphate. This is presented here as phosphate rather than as phosphorus because the commercially available intravenous replacement solutions are provided in terms of millimoles of phosphate. In general, these solutions are potassium-containing solutions, and are available in 10 ml vials for intravenous use. They contain, depending on the particular preparation, 1.12 to 3 mM phosphate per ml and 2 to 4.4 mM potassium per ml. My present recommendation with someone whose serum phosphorus level is less than 1.0 mg/100 ml and is symptomatic and cannot take phosphorus by mouth is to provide the patient with 9-10 mM of phosphate in a period of approximately 8-12 hours and then reassess the clinical picture as well as the serum phosphorus, calcium, and potassium levels. This dose may then be repeated until correction occurs.

The *hazards* of intravenous phosphate are:

1. Hyperphosphatemia may occur and lead to metastatic calcification and hypocalcemia if too much phosphate is given.
2. Hyperkalemia may result in view of the fact that potassium is being administered. In

our experience, this is seldom a problem because the particular patients involved are commonly also potassium deficient.

The *contraindications* to the administration of phosphate intravenously are:

1. Hypercalemia
2. Hyperphosphatemia, as for example exists in renal failure
3. Oliguria
4. Tissue necrosis.

SUMMARY

Severe hypophosphatemia is a serious life-threatening condition involving many organ systems. Its early recognition and treatment are dependent on a knowledge of the setting in which it occurs. □

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P.O. Box 26901, Oklahoma City, Oklahoma 73190.

Variation in Response of *Pseudomonas aeruginosa* to Combinations of Gentamicin and Carbenicillin

D. J. FLOURNOY, PhD
KENNETH M. CUNNINGHAM, MS
EVERETT R. RHOADES, MD

The percentage of synergistic combinations of gentamicin and carbenicillin employed against Pseudomonas aeruginosa isolates varied somewhat among five Oklahoma City institutions.

INTRODUCTION

The combination of gentamicin and carbenicillin has been shown to be synergistic against some strains of *Pseudomonas aeruginosa*,¹⁻¹⁰ but this effect is not predictable among different isolates. In addition, antimicrobial susceptibility patterns vary significantly among institutions.¹¹ This is relevant since combined therapy is recommended against isolates which are susceptible to both agents individually.¹⁰

Since this combination is often used empirically, without subsequent *in vitro* verification of its effect against a given organism, a study was done to determine if these effects varied among isolates from five institutions.

MATERIALS AND METHODS

CLINICAL ISOLATES. One hundred two different isolates, from ninety-seven patients, of *Pseudomonas aeruginosa* were collected from five Oklahoma City institutions during June and July, 1978. Organisms resistant to gentamicin (minimal inhibitory concentration $> 8 \mu\text{g/ml}$) or carbenicillin (minimal inhibitory concentration $> 250 \mu\text{g/ml}$) were not included. *Pseudomonas aeruginosa* isolates were identified as gram negative bacilli, cytochrome oxidase positive and capable of growing on Pseudosel agar (Difco) at 42° C. Stocks were maintained on Mueller Hinton agar (Difco).

INSTITUTIONS. Organisms were gathered from four hospitals and one private laboratory. Veterans Administration Medical Center (VAMC) is a 434-bed general medical and surgical hospital serving primarily adult male patients. Oklahoma Children's Memorial Hospital (OCMH) is a 200+bed general medical and surgical children's hospital. University Hospital and Clinics (UHC) is a 311-bed general medical and surgical hospital for adult patients. Presbyterian Hospital (PH) is a 349-bed general medical and surgical hospital for adult and children patients. Northwest Laboratories (NWL) is a private clinical and anatomical pathology laboratory serving many areas of Oklahoma.

ANTIMICROBIALS. Gentamicin (GM) pow-

der was supplied by the Schering Corporation and carbenicillin (CB) powder by Beecham Laboratories. Working solutions of gentamicin were made at 32 and 16 $\mu\text{g/ml}$ in Mueller Hinton broth (Difco) and stored at 4° C throughout the 5-week study. The same gentamicin solutions were used for the entire study. A fresh stock solution of carbenicillin, at 4000 $\mu\text{g/ml}$, was prepared weekly and subsequently diluted to a working solution of 400 $\mu\text{g/ml}$ daily.

CARBENICILLIN STABILITY. Carbenicillin was diluted to 1000 $\mu\text{g/ml}$ in Mueller Hinton broth, brain heart infusion broth (Difco), human serum free of antibiotics and distilled water. Aliquots were stored at -20°, 4°, 25°, 35° and 42° C. The same aliquot was sampled daily for five consecutive days with the exception of the -20° C study where five separate aliquots were used to avoid deterioration due to the freeze-thaw-freeze process. Carbenicillin was assayed daily by disc-agar diffusion testing in Antibiotic Medium 1 (Difco) using a *Bacillus subtilis* spore suspension (Difco) as the assay organism.

MINIMAL INHIBITORY CONCENTRATIONS (MICs). MICs of individual and combined antibiotics were determined by a broth microdilution method, final concentrations being illustrated in Figure 1. Mueller Hinton broth was used as the diluent. The cation concentrations were Ca^{++} 4-8 $\mu\text{g/ml}$ and Mg^{++} 36 $\mu\text{g/ml}$. The final volume in each microdilution plate well was 0.1 ml. The inoculum consisted of approximately 10^5 organisms/ml in Mueller

Hinton broth. The broth microdilution procedure was as follows:

1. Add 50 μl of Mueller Hinton broth to wells 2-12, rows A-H.
2. a. Add 50 μl of GM (32 $\mu\text{g/ml}$) to wells 1-2, row A only.
b. Add 50 μl of GM (16 $\mu\text{g/ml}$) to wells 1-2, rows B-H.
3. Make a twofold serial dilution across from wells 2-11, rows A-H, then discard.
4. Add 50 μl of CB (400 $\mu\text{g/ml}$) to wells 1-12, row A only.
5. Make twofold serial dilutions down from wells 1-12, rows A-G only, then discard.
6. Add 50 μl of standardized inoculum to all wells.

Each microdilution plate thus contained individual and combined (checkerboard pattern) antibiotic MICs and a positive control for a given isolate. A higher concentration of gentamicin was added to wells 1-2, row A only, to compensate for the dilution factor when carbenicillin is initially added to row A. Antibiotic concentrations were altered in those instances where CB MICs were > 100 $\mu\text{g/ml}$.

Plates were incubated for 18 hours at 35° C. One of the isolates (OCMH 2) was used as a quality control check by subsequently testing it on every run. A negative control plate consisting of everything except organisms was also repeatedly tested.

INTERPRETATION OF MICs. Individual antibiotic MICs were taken as the lowest concentration in which no visible growth appeared. Synergy was defined as a reduction of the MIC values for both antibiotics by at least

		1	2	3	4	5	6	7	8	9	10	11	12
A	GM	8	4	2	1	0.5	0.25	0.12	0.06	0.03	0.015	0.007	
	CB	100	100	100	100	100	100	100	100	100	100	100	
B	GM	8	4	2	1	0.5	0.25	0.12	0.06	0.03	0.015	0.007	
	CB	50	50	50	50	50	50	50	50	50	50	50	50
C	GM	8	4	2	1	0.5	0.25	0.12	0.06	0.03	0.015	0.007	
	CB	25	25	25	25	25	25	25	25	25	25	25	25
D	GM	8	4	2	1	0.5	0.25	0.12	0.06	0.03	0.015	0.007	
	CB	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5
E	GM	8	4	2	1	0.5	0.25	0.12	0.06	0.03	0.015	0.007	
	CB	6.25	6.25	6.25	6.25	6.25	6.25	6.25	6.25	6.25	6.25	6.25	6.25
F	GM	8	4	2	1	0.5	0.25	0.12	0.06	0.03	0.015	0.007	
	CB	3.12	3.12	3.12	3.12	3.12	3.12	3.12	3.12	3.12	3.12	3.12	3.12
G	GM	8	4	2	1	0.5	0.25	0.12	0.06	0.03	0.015	0.007	
	CB	1.56	1.56	1.56	1.56	1.56	1.56	1.56	1.56	1.56	1.56	1.56	1.56
H	GM	8	4	2	1	0.5	0.25	0.12	0.06	0.03	0.015	0.007	+

Figure 1. Final antibiotic concentrations in microdilution plate.

Table 1. Carbenicillin stability versus time, temperature and medium a, b

		Temperature (C)				
Medium	Time (hours)	-20	4	25	35	42
MH	24	100	100	100	100	100
	48	100	100	100	100	100
	72	100	100	100	100	100
	96	100	100	100	100	100
	120	100	100	100	100	100
BHI	24	100	100	100	100	92
	48	100	100	100	84	63
	72	100	100	100	63	50
	96	100	100	100	57	43
	120	100	100	91	50	39
Serum	24	100	100	100	100	89
	48	100	100	100	59	29
	72	100	100	82	24	11
	96	100	92	66	21	0
	120	100	70	59	14	0
Water	24	100	100	100	100	100
	48	100	100	100	100	100
	72	100	100	100	100	100
	96	100	100	100	100	100
	120	100	100	100	100	100

Table 1 legend

- a Numbers rounded to nearest whole percentage of remaining activity
b Carbenicillin tested at 1000 µg/ml
MH (Mueller Hinton broth), BHI (brain heart infusion broth)

fourfold. Partial synergy was noted when a fourfold or greater reduction in the MIC of one compound was accompanied by a twofold reduction in the MIC of the second compound. Indifference was noted when there was no reduction or only a twofold reduction of MICs.

RESULTS

The effect of time, temperature and medium upon the stability of carbenicillin is shown in Table 1. Carbenicillin was stable in Mueller Hinton broth and distilled water for at least five days at temperatures from -20 to 42° C. Stability decreased with increased time and

Table 2. Summary of effects

		Percentage		
Institution	Isolates	Synergy	Partial Indifference Synergy	
VAMC	23	30	57	13
OCMH	23	44	52	4
UHC	12	50	50	0
PH	30	50	47	3
NWL	14	43	50	7
Total	102	43	51	6

Table 3. Gentamicin MICs on *Pseudomonas aeruginosa* isolates

Insti-tution	Iso-lates	Percentage of isolates with MICs (µg ml) of								
		0.03	0.06	0.12	0.25	0.5	1.0	2.0	4.0	8.0
VAMC	23	4		13	26	65	91	96	100	
OCMH	23		4	14	48	87	100			
UHC	12		8	25	33	67	83	92	100	
PH	30			7	27	67	97		100	
NWL	14				36	86			93	100
Total	102	1	3	12	33	74	93	95	99	100

Table 4. Carbenicillin MICs on *Pseudomonas aeruginosa* isolates

Insti-tution	Iso-lates	Percentage of isolates with MICs (µg ml) of:							
		1.56	3.12	6.25	12.5	25	50	100	250
VAMC	23	4				8	22	91	100
OCMH	23	13	17			30	57	91	100
UHC	12	17				25	33	92	100
PH	30						17	87	100
NWL	14						7	100	
Total	102	6	7			12	27	91	100

temperature. and was most marked in serum.

A summary of effects of antibiotic combinations is presented in Table 2. Overall, synergism was achieved against 43% of the isolates. No instances of antagonism were found. No correlation was found between individual antibiotic MICs and the six isolates whose effects showed indifference. In Tables 3 and 4 are noted the cumulative percentages of individual antimicrobial MICs for the isolates. Again, no correlation could be found between MICs and responses to combined antibiotics.

The positive control organism was tested nine times over the five-week study. Gentamicin and carbenicillin MICs remained stable, to within a twofold dilution of the median. On these nine occasions, synergy was present six times (67%) and partial synergy the other three times (33%). This undoubtedly occurred because, by definition, a one-well difference in growth can change the effect from synergy to partial synergy.

DISCUSSION

Results of *in vitro* synergy studies can be influenced by inoculum size, the number of isolates tested, antimicrobial susceptibility patterns and other characteristics of isolates,¹⁰ medium, incubation time and conditions and by the definition of synergy and other related terms. The responses of combined agents against various strains is unpredictable, however.¹² With this in mind, synergy of GM/CB combinations versus *Pseudomonas*

aeruginosa isolates has been reported as 15% (4), 37% (9), 50% (6), 54% (8), 72% (5) and 73% (10) by various investigators. Although the isolates varied in these studies, undoubtedly so did other factors. No reports were found comparing responses of isolates among different institutions. This study revealed the combination of GM/CB against 102 *Pseudomonas aeruginosa* isolates produced synergy 43% [range 30-50%] of the time, partial synergy 51% [47-57%] and indifference 6% [0-13%]. The only variable was in the isolates tested.

Synergy, by definition, implies that less antibiotic is needed to kill a given organism or the cidal effect is quicker than would be the case with either antimicrobial alone. What is the relationship between treatment efficacy and synergy, partial synergy, indifference and antagonism? Several investigators have attempted to answer this question. Anderson *et al*¹ found response rates of bacteremic patients were 80% for *in vitro* synergistic combinations compared to 64% for nonsynergistic combinations. Although the difference was significant ($p < 0.05$) it was not striking and could have easily been influenced by many other factors. Archer and Fekety² found that a synergistic combination of GM/CB significantly reduced the number of rabbits with experimentally-induced infected heart vegetations, mortality, relapses and the number of organisms found in nonsterile vegetations when compared to a control group. If it is assumed that synergy is directly related to treatment efficacy, what might the effect of partial synergy (additive effect) be? This point is especially relevant since

a large number of isolates, 51% in this study, were only inhibited in a partially synergistic manner. Indeed it would appear that approximately one-half of *Pseudomonas aeruginosa* isolates treated with GM/CB combinations would show this effect. If *in vitro* synergy is important for treatment success, then it becomes mandatory that more testing of antimicrobial combinations be performed. Unfortunately, present methods are rather cumbersome for many laboratories.

Is the effect of combination therapy more critical than the type of antimicrobial used? Some other aminoglycoside/penicillin combinations that have been reported are: amikacin or tobramycin with carbenicillin or ticarcillin. Heineman¹² showed amikacin/ticarcillin to produce synergy against 45 *Pseudomonas aeruginosa* strains more often than gentamicin or tobramycin with ticarcillin. In addition, Anderson *et al*¹ reported a better response rate with synergistic combinations of aminoglycoside/ampicillin than amino-glycoside/cephalosporin or carbenicillin. However, different gram negative bacilli were encountered in these infections, introducing even another variable. Available information indicates that the agents used are more critical than the combined effect.

In summary, GM/CB in combination produced synergy against approximately one-third to one-half of the *Pseudomonas aeruginosa* isolates tested. The study also indicates that isolates in the five Oklahoma City area institutions varied somewhat in their responses to the combination of GM/CB. The explanation for this variation is not clear and represents a very intriguing problem. It is clear that one must be careful drawing generalizations about the response of organisms to combinations of antibiotics. Additional investigation into the mechanism of strain variation in response to combinations of antibiotics should provide important information as to the mechanism of antibiotic action.

ACKNOWLEDGMENTS

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D. J. Flournoy, PhD, a 1973 graduate of the University of Houston, is now Director of Microbiology at the Veterans Administration Medical Center in Oklahoma City.

Kenneth M. Cunningham, MS, a 1977 graduate of the University of Oklahoma Health Sciences Center, is employed in the Laboratory Service of the Veterans Administration Medical Center in Oklahoma City.

A 1956 graduate of the University of Oklahoma School of Medicine, Everett R. Rhoades, MD, is now Professor of Medicine and Microbiology and Chief of the Infectious Disease Section at the Veterans Administration Medical Center in Oklahoma City.

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For additional information write: Douglas E. Johnson, MD, Head, Department of Urology and Professor of Urology, M.D. Anderson Hospital, 6723 Bertner, Houston, Texas 77030.

Hemodynamic Monitoring in the Operating Room

R. RICHARD EDDE, MD
SAUNDRA SMALLEY, CRNA

Invasive hemodynamic monitoring, once limited to intensive care units, is now employed in the operating room, providing for rapid assessment of the cardiovascular system.

Invasive monitoring of critically ill patients or those undergoing extensive surgical procedures has become standard care in many centers.^{1, 2} Hemodynamic monitoring and evaluation allows for more precise diagnosis as well as quantification of the pathophysiology involved. Surgical or pharmacologic therapy may also be analyzed more adequately.³ We have attempted in our operating rooms to define the limits and usefulness of hemodynamic monitoring. The methods and techniques we have used are described below.

METHODS

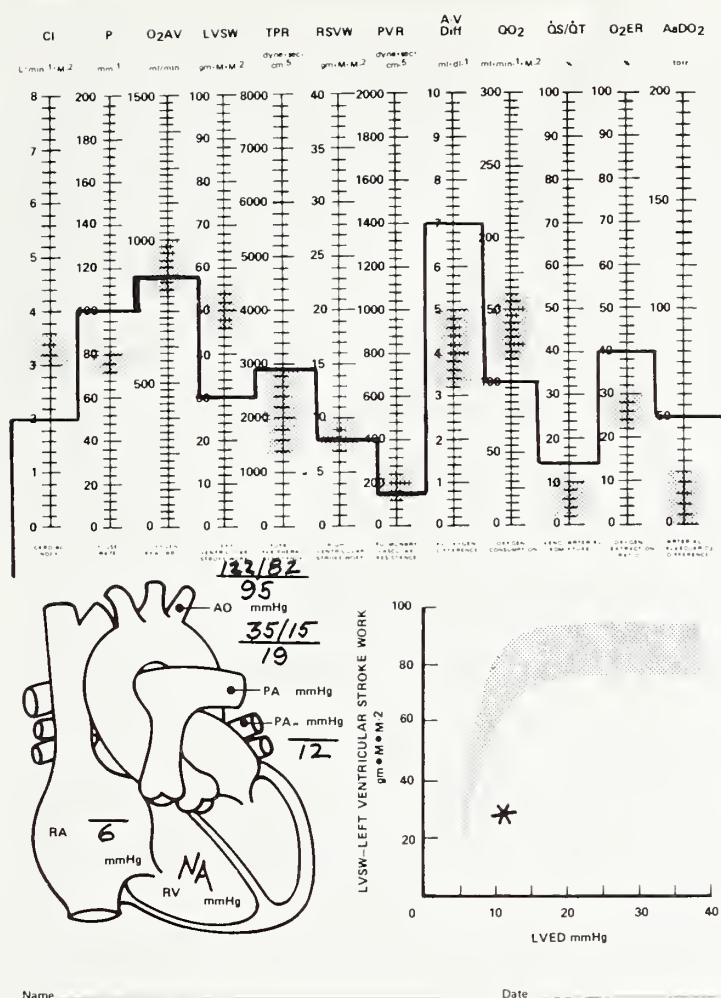
The basic components of hemodynamic monitoring in the operating room include arterial cannulation and pulmonary artery

catheterization. Utilizing sterile technique, an #18 or #20 gauge teflon cannula is inserted percutaneously into the radial artery. A #7F triple-lumen thermodilution pulmonary artery catheter is introduced via the internal jugular vein and advanced into the pulmonary artery. The arterial cannula, pulmonary artery and central venous pressure catheters are connected to strain-gauge transducers and a Hewlett-Packard #78303A four-channel oscilloscope with LED digital display of the various pressures. Heart rate, systolic and diastolic blood pressures, pulmonary artery diastolic and wedge pressures and central venous pressures are then continuously monitored. Arterial and mixed venous (from pulmonary artery) blood samples provide gas analysis and oxygen saturation.

In the operating room, a Texas Instruments TI 59 Programmable Calculator is used to derive the following parameters of cardiopulmonary function: Cardiac index (CI), oxygen availability (O_2AV), left ventricular stroke work (LVS_W), total peripheral resistance (TPR), right ventricular stroke work (RVS_W), pulmonary vascular resistance (PVR), arterial-venous oxygen difference (A-V Diff.), oxygen consumption (QO_2), veno-arterial admixture (Q_s/Q_t), oxygen extraction ratio (O_2ER), and alveolar-arterial oxygen difference ($AaDO_2$).

These measured as well as calculated parameters along with intracardiac pressures are plotted on a form called the Hemodynamic

Hemodynamic Profile



Hemodynamic Profile

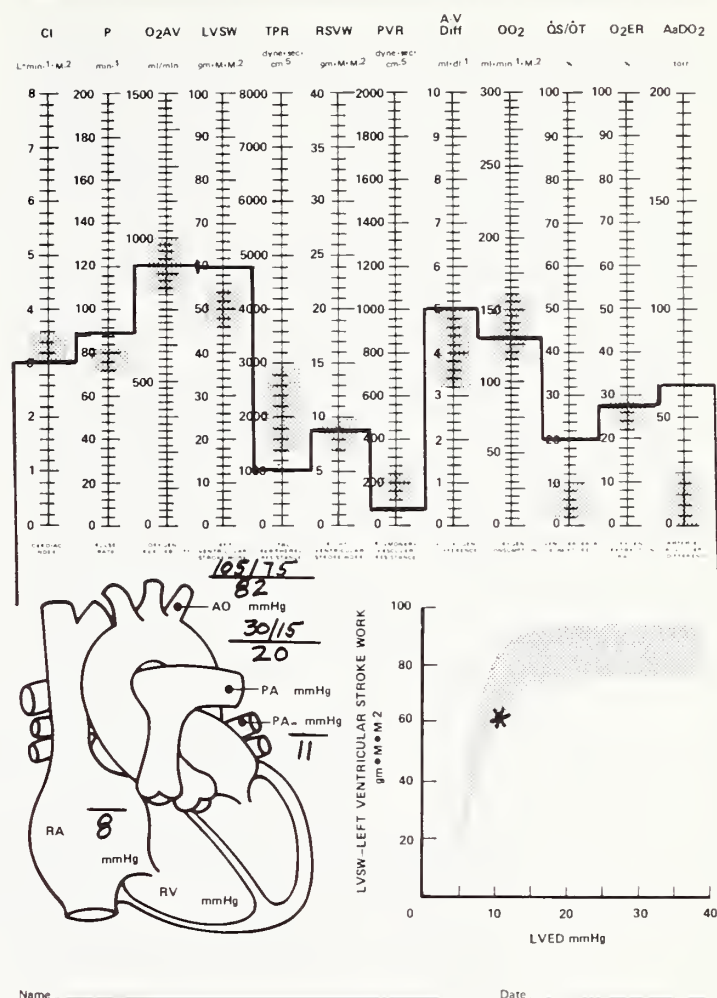


Figure 1

Profile. A Sarnoff Curve is also included and may be used to estimate ventricular function. The shaded areas represent the normal range of function. The time from collection of data to a finished profile is approximately fifteen minutes.

RESULTS

Figure 1. shows a Hemodynamic Profile shortly after induction of anesthesia of a pa-

R. Richard Edde, MD, was graduated from the University of Oklahoma College of Medicine in 1971, where he is now assistant professor of anesthesiology. Certified by the American Board of Anesthesiology, Dr Edde is a Fellow of the American College of Anesthesiology and a member of the International Anesthesia Research Society.

Saundra Smalley, CRNA, was graduated from the Queens Hospital School of Nursing, Honolulu, Hawaii, and Charity Hospital School of Anesthesia for Nurses. She is a certified registered nurse anesthetist at the Veterans Administration Medical Center, Oklahoma City.

tient undergoing an exploratory laparotomy for a bowel obstruction. Examination of the Profile reveals that although the blood pressure is normal, the cardiac index is low, indicating poor perfusion, although oxygen extraction by tissues (AV oxygen difference) is high. The pulse rate is elevated and the left ventricular stroke work (amount of work the left ventricle performing each beat) is low. The Sarnoff Curve graphically depicts the poor functioning ventricle. Total peripheral resistance is in the high range of normal. Basically, the patient is in shock, although the blood pressure is normal. Oxygen extraction is elevated to compensate for the poor perfusion.

Figure 2 illustrates this patient's response to a nitroprusside infusion. With a decrease in peripheral resistance there has been improvement in the cardiac index. Tissue extraction of oxygen has returned to normal. The Sarnoff Curve depicts this improved ventricular function. Volume supplementation was not used to improve ventricular performance because of a normal pulmonary wedge pressure. The patient continued to do well and was taken to the recovery room in satisfactory condition. The elevated AaDO₂ probably reflects an increase

Monitoring / EDDE, SMALLEY

in pulmonary shunting common to general anesthesia.

DISCUSSION

The Hemodynamic Profile provides for a rapidly generated, concise, as well as graphic display of the hemodynamic status of critically ill patients. The quantitative assessment of hemodynamics, oxygen transport, and metabolic function may be quickly analyzed. Although appearing somewhat complex, the profile actually simplifies and provides for a rational method of integrating complex information. We have shown how the Profile may be useful in describing a patient's cardiopulmo-

nary status during a major surgical procedure. The process is cheap, accurate, and helpful. Cohn and Del Guercio have developed an Automated Physiologic Profile used mainly in intensive care units.⁴ We have attempted to show how this same approach is practical in the operating suite. □

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P.O. Box 26901, Oklahoma City, Oklahoma 73190.

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Penicillin Resistant Gonorrhea

Oklahoma's first case of penicillinase-producing *Neisseria gonorrhoeae* (PPNG) was identified in January 1979. Rapid epidemiology and thorough diagnostic techniques prevented the spread of PPNG in this case, but the need for continued surveillance is apparent.

On January 18, the State VD Control Program learned that a local female had been exposed to PPNG diagnosed in North Dakota. That same day, the Oklahoma patient was examined by culture from the cervix, rectum, and naso-pharynx and treated with 2 gm spectinomycin intramuscularly. During interview, she disclosed information on seven contacts over a six-month period, including three who resided outside the state. By the following day, four had been examined and treated with spectinomycin.

Confirmed PPNG was never successfully recovered from our female patient, but three of her contacts had PPNG, one of these in Oklahoma. This asymptomatic male had a positive culture from exudate obtained by prostate massage. It was confirmed PPNG by the state



News From
The Oklahoma State
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laboratory and the Center for Disease Control in Atlanta.

Ultimately, our female patient disclosed nine contacts in all. Three weeks were required to find one, since no name or address was provided, and two other October contacts were never fully identified. However, December 1978 seemed to be the crucial month of sexual activity.

Thus, statewide PPNG surveillance takes on renewed significance. All gonorrhea patients should receive a test-of-cure culture, optimally 3-5 days after completion of therapy. When positive, these isolates should be tested for penicillinase properties. (Note: While spectinomycin is the most effective drug for PPNG, it is not a recommended drug of choice in uncomplicated gonorrhea therapy.) □

COMMUNICABLE DISEASES IN OKLAHOMA FOR FEBRUARY, 1979

DISEASE	FEBRUARY		JANUARY	Total To Date	
	1979	1978	1979	1979	1978
Amebiasis	3	3	—	3	3
Brucellosis	—	1	—	—	1
Chickenpox	—	—	—	—	—
Encephalitis, Infectious	1	—	—	1	—
Gonorrhea (Use Form ODH-228)	972	953	1122	2094	1902
Hepatitis, A, B, Unspecified	32	58	10	42	84
Leptospirosis	—	—	—	—	—
Malaria	—	—	—	—	—
Meningococcal Infections	4	4	2	6	5
Meningitis, Aseptic	1	3	1	2	7
Mumps	—	—	—	—	—
Rabies in Animals	17	16	11	28	28
Rheumatic Fever	—	—	—	—	—
Rocky Mountain Spotted Fever	—	—	—	—	—
Rubella	4	1	—	4	3
Rubella, Congenital Syndrome	—	—	—	—	—
Rubeola	1	—	—	1	4
Salmonellosis	16	15	13	29	27
Shigellosis	16	6	12	28	19
Syphilis, Infectious (Use Form ODH-228)	3	13	7	10	23
Tetanus	—	—	—	—	—
Tuberculosis, New Active	50	35	21	71	50
Tularemia	—	—	—	—	—
Typhoid Fever	—	—	—	—	—
Whooping Cough	—	2	—	—	3

Dr Leebron Accepts OSMA Presidency

By Melinda Turner
Publications Specialist

Guided by 97 presidents, the Oklahoma State Medical Association has created its own history from the horse-and-buggy days of a young state to the floors of the legislature in an ultra-modern 20th century.

William M. Leebron, MD, a Beckham County general surgeon, accepted the challenge of history making in the OSMA president's role at the annual meeting in May.

He challenges that medical care is a need rather than a right; that compulsory national health insurance is not in the best public interest; and that there are increasing problems as the life expectancy of patients exceeds that of their grandparents.

The OSMA should take a watchdog stance over the outcome of the patients' position in government programs. "I am an optimist. If the patient benefits, then in the long run so will the physician."

As president of the OSMA and as an Elk City physician, Dr Leebron's ambition is to continue to provide better care for the patient. That care should be treated as a need. It is not a right. "The government should be encouraged to stay within its parameters and made to look at all aspects of the issue. If the government wants to look at medical care as a right, then this concept must include food, clothing, and shelter. These are basic necessities and therefore a citizen's right."

The OSMA's role should not be to become more political, but to be more informed about legislative actions' effects on Oklahoma medicine.

"We cannot be isolated anymore with the advent of instant news. Medicine is more universal," he said.

The real importance of the OSMA is to serve as a cohesive professional body organized to promote the interests of medicine and better medical care.

Looking into the future, Dr Leebron encourages the organized body of physicians to help



William M. Leebron, MD, Beckham County general surgeon.

patients cope with society and the problems of life span extension.

"As we prolong life, physicians need to be more involved in the quality of life development," he said.

The Western Oklahoma physician is busier than ever, seeing more patients and doing more surgeries. "That is the way it ought to be," he said.

A physical fitness proponent, Dr Leebron plays tennis on most mornings from 6:00 a.m. to 7:00 a.m. before walking to the hospital. "Sometimes before making hospital rounds, I am too impatient to walk, so I ride my bicycle. The only problem with bicycling is trying to keep my hair from blowing," he said.

Dr Leebron is chief of surgery at the Community Hospital in Elk City. He is the past-president of the Beckham County Medical Society, past vice-president of the OSMA, past-president of the International Academy of Proctology, alternate trustee, and past-chairman of the Council on Medical Services.

He is a trustee for the Oklahoma Foundation for Peer Review, a fellow of the American College of Surgeons, a fellow of the International Academy of Proctology and Subarea Council member of the Health Systems Agency in Oklahoma.

Dr Leebron graduated from the University of Pennsylvania School of Medicine. He retired from the United States Army Medical Corps as Lieutenant Colonel in 1945.

He is married to Charlotte Speer Leebron, past-president of the OSMA Auxiliary. □

Carter Claims Doctors Lax In Inflation Fight

Physicians are not doing enough to reduce medical cost inflation. That is the message the President sent Congress in March in introducing the Administration's Hospital Cost Containment Act of 1979.

Despite a success at voluntary deceleration demonstrated by the health industry's Voluntary Effort (VE) to contain costs, Carter proceeded with his bill.

The Administration's bill provides mandatory controls to limit the annual increase in acute care hospitals' inpatient revenues if the voluntary percentage limit is not successful. Federal institutions, long-term care facilities, HMO hospitals and small rural hospitals are not regulated under this proposal.

The proposal imposes a national "voluntary" percentage limit of 9.7 per cent on hospital expenditures. The nation's current rate of inflation is approximately 10 per cent. Bowing to the demands of labor unions, the proposal also provides a modified wage "pass-through" provision for hospital workers.

By July 1, 1980, and each year thereafter, the HEW would determine the extent of deviation of all covered hospitals from the yearly limit figure. □

Elk City Honors OSMA Auxiliary Past-President

Mrs. Charlotte Leebron has been named Elk City's "Woman of the Year" by the Tsa La Gi Literary Club. A past-president of the Oklahoma State Medical Association Auxiliary, she is the wife of OSMA President, William M. Leebron, MD.

She was selected because for her accomplishments as an active member of the Elk City community. Mrs Leebron organized and served as president of the Hospital Service Volunteers at the Elk City Community Hospital. Under her leadership a gift shop was added, television sets were installed in rooms and the Living Tribute Fund program was begun.

Mrs. Leebron has served as director of the auxiliary of the International Academy of Proctology, secretary of the John Paul North Surgical Society, chairperson of the Women's Division of the Chamber of Commerce, planning commissioner and on the Board of Western Oklahoma Symphony Committee.

She is a strong supporter of civic and cultural activities and an enthusiastic tennis player. She and her husband have been pioneers of Elk City's tennis program. □



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Ed L. Calhoon, MD, has been appointed to the American Medical Association Council on Legislation. A former OSMA President, he is a general practitioner in Beaver. He is one of OSMA's three delegates to the AMA House of Delegates. □

New York Indicts Surgeons For Withdrawal of Services

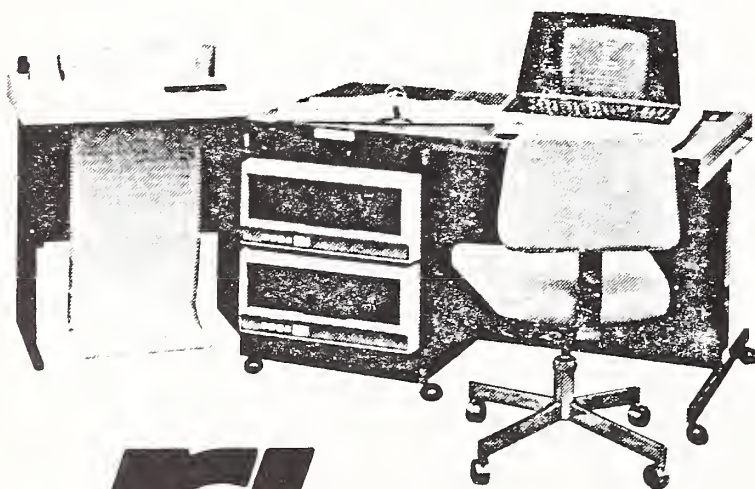
New York has indicted eight surgeons who withdrew from two voluntary programs in which they provided non-emergency medical services for persons covered by Worker's Compensation or No-Fault Auto Insurance.

The surgeons have been indicted under the state's antitrust criminal laws for "combining and conspiring to withdraw their services and medical treatment from the public."

The basis of the state action is the New York antitrust law which requires uniform conduct. The Association of American Physicians and Surgeons (AAPS) contends that the state's actions are not based on law and has filed an amicus curiae, "friend of the court," brief in support of the New York surgeons.

The issue has become a tug-of-war over the application of the antitrust laws to the learned professions. Legislative history shows that the New York Court of Appeals has consistently refused to apply the state's antitrust laws to the legal or medical professions. □

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Carter Sends Congress A Limited NHI Plan

Instead of a single comprehensive national health insurance proposal, President Carter has decided to send Congress a limited plan, which will become effective in fiscal year 1983, if approved. It is estimated it will cost \$10 to \$15 billion.

The scheme is expected to include: (1) expansion of health care benefits to cover those people who do not now have full health care insurance; (2) some form of "catastrophic health insurance"; and (3) provisions regarding health cost containment.

HEW Secretary Joseph Califano called the scheme a "course of action . . . (which) is itself balanced and sensible."

Carter will include a proposal for a universal, comprehensive National Health Plan in the plan. Full endorsement of the limited NHI bill by the HEW is conditioned on the passage of hospital cost containment legislation. ☐

Okeene Physician Predicted Threat Before US Senate Finance Committee

An Okeene family physician warned the US Senate Finance Committee that federal regulations are threatening the country's rural health care system.

"I sincerely believe that our rural hospitals and community health centers are American's front line defense against illness and disease," C. H. Williams, MD, told the committee March 13 in a discussion on proposed revision of Medicare and Medicaid laws. "It is here that medical care is delivered and the health care dollars are saved through preventive medicine, early diagnosis and treatment."

Dr Williams explained the difficulty small hospitals have in staffing the same number of committees, maintaining the same kind of records and generating the same number of reports to HEW as a 1,000-bed hospital with hundreds of doctors on its staff.

In the past the federal government has tried to force changes to bring rising costs under control and enable hospitals to run more efficiently, said Dr Williams.

For example, in 1974, Dr Williams said when federal utilization review regulations threatened to close 50 Oklahoma hospitals, physicians and hospital administrators put together the Oklahoma Utilization Review System, which was more compatible with the needs of Oklahoma. OURS saved nearly \$16 million in Medicare and Medicaid claims during its first year.

"Rural medicine is unique. To some degree rural physicians must be all things to all people. To accomplish our mission, however, we must have relief from the ominous regulations that take too much of our time from patients. We are burdened with massive paperwork and the compliance with federal regulations that create a severe drain on our professional manpower and keeps most of our hospitals in a financial crisis year after year," Dr Williams said.

He urged the committee to seriously consider the cost of implementing cost containment programs and other regulatory proposals which place unwanted and unnecessary restrictions on the practice of medicine and cause corresponding increases in costs. ☐

OSMA, ONA Form Task Force

What is the role of an independent nurse practitioner? How do nursing and medicine professions interrelate? How should clinical privileges, credentialing and compensation be designated?

The Oklahoma State Medical Association and Oklahoma Nursing Association have formed a Task Force to clarify these issues. At the first meeting in March, the 18 committee members suggested several discussion topics for future meetings. They include the following: professional relationships between nursing and medicine; relating medical procedures to nurse education; quality assurance; definition of supervision; RN feedback to MD on patient status; and standards of practice.

Co-chairmen of the Task Force are C. S. Lewis, Jr., MD, OSMA Immediate Past-President, and Aaron McCaskey, ONA President. □

OSMA Finds Capitol Hill Ready to Regulate Health

The normal marketplace competitive forces do not and will not work in the health care industry. This is the prevailing attitude that Oklahoma State Medical Association representatives found during a recent trip to Washington, DC.

Marvin Margo, MD, OSMA immediate past-president, Perry Lambird, MD, chairman, OSMA Council on Governmental Activities, and David Bickham, executive director, joined John Montgomery, OSMA's Washington lobbyist in a series of meetings with Congressmen and bureaucrats.

The delegation discussed a variety of regulatory problems with representatives of the Health Care Financing Administration (HCFA) and with other congressional representatives involved in health affairs.

The purpose of the meetings was to explain the preliminary General Accounting Office audit of the Oklahoma Utilization Review System (OURS); to reaffirm the association's support of OURS; and to request that Oklahoma be permitted to demonstrate hospital cost savings on the basis of regulation by exception.

Visits with HCFA representatives were not encouraging, however, Dr Lambird reported.

"We were told that HCFA's evaluation of

the OURS program would start soon, and we were left with the impression that the Administration was generally negative toward the retrospective review of hospital services. Although the OURS program was recognized as innovative and cost effective, the savings were considered to be small and unimportant in the overall view of medical cost."

As a result of the visit, members of the Council on Governmental Activities are preparing documented evidence of the cost of federal regulations in hospitals. It is hoped this will be used by Oklahoma Congressmen in debates over deregulation of the profession and in support of the OURS concept. □

OSMA Council Amends Insurance Applications

OSMA Council on Members' Services has accepted a proposal to amend professional liability insurance application forms. State Board of Medical Examiners' Secretary, Harry D. Tate, MD, told the council the forms should be more specific since legislation restricted the examiners from sharing information with the association.

Dr Tate recommended that the OSMA forms, used by physicians who apply for professional liability coverage, include information about malpractice claims which have been filed, settled or are pending. □



Marvin K. Margo, MD, OSMA Past-President, right, presented a \$250 expense-paid trip to Mrs Alva Card, center, English teacher of the first place winner of the 1979 "Ability Counts" Contest sponsored by the Governor's Committee on Employment of the Handicapped. John Harris, chairman of the Governor's Committee, left, looked on as the presentation was made. □

States Propose Bills On Marijuana Research

Eighteen states are considering proposals to authorize marijuana research. Many of the bills are patterned after a New Mexico law, which was the first statute of its kind to be enacted.

Bills on marijuana research have now been introduced in Missouri, New Jersey, Mississippi, Colorado, Kansas, California, Washington, Oregon, Hawaii, Massachusetts, Wisconsin, Michigan, Montana, West Virginia, Connecticut, Maryland, Iowa and Ohio.

The bills generally propose review boards within the administering agencies to screen physician and patient applicants. These boards would be comprised of a certified ophthalmologist, a certified psychiatrist and an internist who is certified in oncology.

Participation typically would be limited to cancer chemotherapy patients and glaucoma patients. The research would be further limited to situations in which patients are "in-

volved in a life-threatening or sense-threatening situation and who are not responding to conventional controlled substances" or to situations in which conventional controlled substances administered have proven to be effective but where the patient has incurred severe side effects." □

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Cancer Network Proposes Patient Education Model

Three hospitals within the Oklahoma Cancer Hospital Network will be involved in model patient education programs if a grant is approved by the National Cancer Institute.

The proposed model program will be designed for pediatric cancer patients in Oklahoma City's Children's Memorial Hospital, for adult patients in Oklahoma City's South Community Hospital, and for both adult and pediatric patients in Tulsa's St Francis Hospital.

The Oklahoma Cancer Center has proposed extension of the physician counseling with the patient. The model is designed to supplement physicians' and nurses' efforts.

The Cancer Center recognizes that physician-patient communication is ongoing in the state and that oncology nurses have made a substantial effort toward informing patients, says Jack L. Whenry, associate director of the center.

He says this project will seek to supplement these activities through an organized, structured effort in patient education. Its purpose is to increase the quality of medical care and to insure that the patient is properly informed concerning his medical problem.

"Education of the patient has always been part of the professional responsibility of physicians, nurses, dietitians, therapists and other members of the health team," Whenry says.

The study will address the reactions of medical personnel as well as patients concerning patient education. It will include instruments to determine if the patient has, in fact, learned anything during his education experience with the patient counselor.

Designed around the local physicians, the program will be conducted by a nurse with additional training in educational methodologies and evaluation. She will be charged with the responsibility of counseling the patient.

Interest in patient education is at its peak, according to Whenry, yet the concept is at a critical and vulnerable stage of development.

Unless approached from an organized, carefully planned and executed methodology, current interest in patient education programs will dissipate, he says, quick start-ups, use of untrained people, over-reliance on packaged audiovisual productions, lack of an interdisciplinary or administrative staff commitment,

and ultimate failure to meet high expectations.

"Perhaps the key to the heart of the problem concerning patient education in cancer is evidenced in the Laetrile issue," Whenry said. "Established, scientifically documented and experimentally controlled therapies are being pushed aside for a cure that has not demonstrated any value in fighting cancer and has caused many deaths from misuse."

The Oklahoma program will be evaluated locally by both health professionals and patients to determine its effect. A cancer resource center will be established at the administrative offices of the Oklahoma Cancer Center located on the University of Oklahoma Health Sciences Center campus. □

Deaths

FLOYD T. BARTHELD, MD
1904-1979

Floyd T. Bartheld, MD, retired McAlester general surgeon, died March 5, 1979. A native of Bennett, Iowa, Dr Bartheld was graduated from Northwestern University Medical School in 1932. He had practiced in Pittsburg County for 43 years before his retirement. Among his medical affiliations were the American College of Surgeons and the American Association of Abdominal Surgeons.

In 1975, the Oklahoma State Medical Association presented Dr Bartheld with a Life Membership.

RICHARD L. HARRIS, MD
1918-1979

Oklahoma City general practitioner, Richard L. Harris, MD, 61, died March 28, 1979. A lifelong resident of Oklahoma City, Dr Harris was graduated from the University of Oklahoma College of Medicine in 1945, where he later served as clinical assistant in the Department of Obstetrics. □

Emergency Medical Care: Just Lights and Noise?

By Melinda Turner
Publications Specialist

It was 2:00 AM on a lonely stretch of road in south Pottawatomie County. A coyote darted across the path of a youth who was returning from work on his motorcycle causing the cyclist to crash.

At 3:00 AM a postman found the youth crumpled in the middle of the road and called for an ambulance. Erroneous directions delayed the arrival of life-saving equipment until 4:00 AM. The youth was paralyzed from the neck down.

The need for emergency medical care in accident scenes such as this convinced Robert J. Wilder, MD, to come to Oklahoma in September, 1977 to develop a system of care for the critically ill or injured.

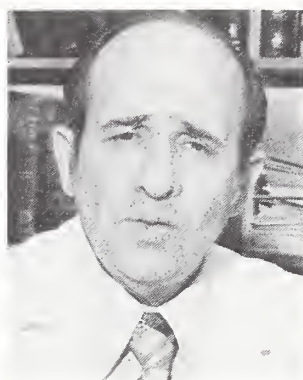
A professor of surgery and chief of the Section of Emergency Medicine and Trauma at the University of Oklahoma Health Sciences Center, Dr Wilder is also the medical director of the Oklahoma Emergency Medical Services (OEMS).

"Oklahoma is behind in getting started. People hate the federal government's intervention and so do I. But this time it was needed to get a worthwhile project off its feet," Dr Wilder said.

Congress stimulated the HEW to set up a Department of Emergency Medical Services (EMS). This Medical Services Department then issued grants to states to develop regional EMS programs.

Dr Wilder and his team at the Oklahoma State Health Department used these federal funds to develop four regional EMS programs in Oklahoma.

A portion of the OEMS grant was used to purchase radios and base stations for ambulances and hospitals in the southeast region of the state. Until this time, Dr Wilder said,



Robert J. Wilder, MD

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WARNINGS: If tolerance develops, the recommended dose should not be exceeded in an attempt to increase the effect; rather, the drug should be discontinued. Tenuate may impair the ability of the patient to engage in potentially hazardous activities such as operating machinery or driving a motor vehicle; the patient should therefore be cautioned accordingly. **Drug Dependence:** Tenuate has some chemical and pharmacologic similarities to the amphetamines and other related stimulant drugs that have been extensively abused. There have been reports of subjects becoming psychologically dependent on diethylpropion. The possibility of abuse should be kept in mind when evaluating the desirability of including a drug as part of a weight reduction program. Abuse of amphetamines and related drugs may be associated with varying degrees of psychologic dependence and social dysfunction which, in the case of certain drugs, may be severe. There are reports of patients who have increased the dosage to many times that recommended. Abrupt cessation following prolonged high dosage administration results in extreme fatigue and mental depression; changes are also noted on the sleep EEG. Manifestations of chronic intoxication with anorectic drugs include severe dermatoses, marked insomnia, irritability, hyperactivity, and personality changes. The most severe manifestation of chronic intoxications is psychosis, often clinically indistinguishable from schizophrenia. **Use in Pregnancy:** Although rat and human reproductive studies have not indicated adverse effects, the use of Tenuate by women who are pregnant or may become pregnant requires that the potential benefits be weighed against the potential risks. **Use in Children:** Tenuate is not recommended for use in children under 12 years of age.

PRECAUTIONS: Caution is to be exercised in prescribing Tenuate for patients with hypertension or with symptomatic cardiovascular disease, including arrhythmias. Tenuate should not be administered to patients with severe hypertension. Insulin requirements in diabetes mellitus may be altered in association with the use of Tenuate and the concomitant dietary regimen. Tenuate may decrease the hypotensive effect of guanethidine. The least amount feasible should be prescribed or dispensed at one time in order to minimize the possibility of overdosage. Reports suggest that Tenuate may increase convulsions in some epileptics. Therefore, epileptics receiving Tenuate should be carefully monitored. Titration of dose or discontinuance of Tenuate may be necessary.

ADVERSE REACTIONS: **Cardiovascular:** Palpitation, tachycardia, elevation of blood pressure, precordial pain, arrhythmia. One published report described T-wave changes in the ECG of a healthy young male after ingestion of diethylpropion hydrochloride. **Central Nervous System:** Overstimulation, nervousness, restlessness, dizziness, jitteriness, insomnia, anxiety, euphoria, depression, dysphoria, tremor, dyskinesia, mydriasis, drowsiness, malaise, headache; rarely psychotic episodes at recommended doses. In a few epileptics an increase in convulsive episodes has been reported. **Gastrointestinal:** Dryness of the mouth, unpleasant taste, nausea, vomiting, abdominal discomfort, diarrhea, constipation, other gastrointestinal disturbances. **Allergic:** Urticaria, rash, ecchymosis, erythema. **Endocrine:** Impotence, changes in libido, gynecomastia, menstrual upset. **Hematopoietic System:** Bone marrow depression, agranulocytosis, leukopenia. **Miscellaneous:** A variety of miscellaneous adverse reactions has been reported by physicians. These include complaints such as dyspnea, hair loss, muscle pain, dysuria, increased sweating, and polyuria.

DOSAGE AND ADMINISTRATION: Tenuate (diethylpropion hydrochloride): One 25 mg. tablet three times daily, one hour before meals, and in mid-evening if desired to overcome night hunger. Tenuate Dospan (diethylpropion hydrochloride) controlled-release: One 75 mg. tablet daily, swallowed whole, in mid-morning. Tenuate is not recommended for use in children under 12 years of age.

OVERDOSAGE: Manifestations of acute overdosage include restlessness, tremor, hyperreflexia, rapid respiration, confusion, assaultiveness, hallucinations, panic states. Fatigue and depression usually follow the central stimulation. Cardiovascular effects include arrhythmias, hypertension or hypotension and circulatory collapse. Gastrointestinal symptoms include nausea, vomiting, diarrhea, and abdominal cramps. Overdose of pharmacologically similar compounds has resulted in fatal poisoning, usually terminating in convulsions and coma. Management of acute Tenuate intoxication is largely symptomatic and includes lavage and sedation with a barbiturate. Experience with hemodialysis or peritoneal dialysis is inadequate to permit recommendation in this regard. Intravenous phenolamine (Regitine®) has been suggested on pharmacologic grounds for possible acute, severe hypertension, if this complicates Tenuate overdosage.

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Merrell

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(Continued on Page xix)

Wrong Number

"Hello. This is Dr John Smith. Could I please speak with Dr Adams? I am seeing one of his patients — a Mrs Brown — and I would like to discuss her case with Dr Adams."

"This is Dr Adams' assistant. Perhaps I can answer your questions and save everyone's time."

"Well, is Dr Adams out of his office?"

"Dr Adams is not available. Can I help you? I have all the information from Mrs Brown's case *immediately* available."

"Alright. Does Mrs Brown have a history of any drug allergies?"

"Negative response to Item 81C in the history."

"Has she had any serious accidents or injuries — especially of the head or neck?"

"Negative response to Item 88C, Item 92D and Item 94D in the history."

"I see. She tells me she had some 'female surgery' in 1954. Could you tell me what organs were removed and the name of the hospital she was in at the time of surgery?"

"Item 104A is incomplete. Item 104AB indicates Municipal General Hospital, Centerville, Oklahoma."

"What were the results of the most recent

examination, electrocardiogram, chest x-ray, laboratory studies and CAT scan of the body?"

"Readouts of all items in Section VII — Code 1049273119; Study E14-Code 2100; Study X1-Code 010; Study LB22-Code 30; Study I28-Code 8808. Do you request repeat?"

"No, thank you. I think I got it all down correctly. If not, I will listen to the playback of this recording. Are these codes and results based on HEW Requirements Catalogue Revision 1984 or 1985?"

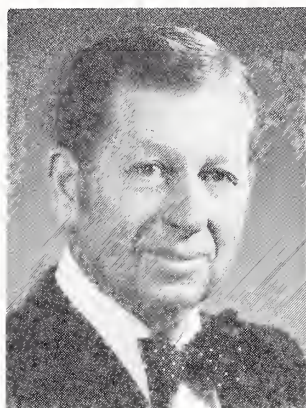
"We are sorry, your last inquiry is non-standard and does not compute."

"Oh! I've got another one of these damned, obsolete computer responders. Listen — Isn't there some person there I can talk to? Mrs Brown is in my office and . . ."

"We are sorry. Patients are present and are being processed by computer banks. Other persons are scheduled to be here next Tuesday and again on Thursday. If all your questions have been answered, thank you for calling. If you require further information, please leave a message at the sound of the electronic signal. For your records, you have been communicating with computer-responder number 274HEWOK993 and this is message number 625791300. Good-bye." MRJ

C. C. Caper

As a young man "growing up" my attempts to win discussion points were frequently based on irony, satire, sarcasm and derision. I remember well my mother cautioning and quickly saying, "C.C. — Constructive Criticism." Years later, as a medical student, C.C. became all important as the patients "Chief Complaint." Now there is a need to place another C.C. in perspective with government concern about inflationary C.C. — Climbing Costs. Health care has been singled out in C.C. — Cost Containment. We are told that if Cost Containment does not work another C.C. — Cost Control will result. Why the health care industry?



A physician was driving down the 55 mile an hour Interstate Highway. He was doing 58 miles an hour. Big and little trucks of all descriptions passed him, as well as many cars. Looking up in his rear view mirror he saw the flashing red lights of the Highway Patrol. Obediently he pulled over and asked the officer,

"What is wrong?"

"You were exceeding the speed limit," the officer stated.

"What about all those others who were passing so much faster, WHY ME?"

The officer replied, "But you were the easiest to stop!"

Cost Containment needs to be practiced by all industries, not just the health care sector. Should over-zealous Cost Containment be practiced by health providers, our present standards of the world's best medical care might well decline. Newer drugs already under the burden of federal supervision could be denied to a patient in need, because of their higher cost. This is especially a possibility in the obtaining of newer and more sophisticated medical equipment. The establishment of significant increases of minimum wages is laudatory, but it does raise all industrial costs, as well as those in the provision of patient care. The result is a continuing gymnastic spiral of Climbing Costs. The efficacy of Cost Containment must be balanced to correlate with improvements in the levels of health care.

The big "C." in Care is the "C." in Cost. Catastrophic Coverage by the private insurance industry is an answer. The intrusion by government should be limited to people who cannot adequately care for themselves. More than this will result in economic gyrations that will be as Catastrophic as the Care the Coverage is to provide. Insurance protection for health disasters remains one logical solution in a free-enterprise society.

If the C.C. Caper persists in health care, will there be any end to C.C. — Capitol Confusion?

Wm. M. Leebrun, M.D.

Reye Syndrome — An Update

HARRIS D. RILEY, JR., MD

This article reviews the important aspects of a relatively recently described disorder — Reye syndrome — which is apparently increasing in incidence.

Acute cerebral edema and fatty infiltration of the liver in encephalitis-like illnesses of children was first observed in 1929.¹ Interest in these encephalopathies of undetermined origin was rekindled by Reye and colleagues in Australia in 1963, when they described a clinical-pathological syndrome seen in 21 children during the previous decade and characterized by a distinct biphasic clinical course, cerebral edema, and fatty degeneration of the viscera, particularly the liver.² In the next few years, sporadic cases were reported from several different centers; virtually all of these reports deal with the pathologic findings of the syndrome. Subsequently, a succession of reports from several countries described similar cases. How-

ever, controversy also ensued over the existence of a *bona fide* syndrome and its proper definition.

Time and further experience have dispelled the skepticism that the described clinical and pathologic findings constitute a clinical entity. The diagnosis of Reye syndrome has become relatively commonplace in most pediatric centers. The number of cases has increased strikingly in recent years, suggesting that the incidence of this serious disorder of children is rising. Moreover, cases occurring in geographic and temporal clusters have been observed, suggesting important epidemiologic and etiologic relations.³⁻⁵ The Center for Disease Control (CDC) now ranks Reye syndrome second only to acute infectious encephalitis as a virus-associated cause of death from disease of the central nervous system in children.⁶ The high mortality of the disease and alarming rapidity of the course of the seemingly benign respiratory or other infection in an otherwise healthy child to decerebrate rigidity, permanent cerebral injury and death in 24-to-48 hours has made the disorder one that every physician who cares for children must be able to recognize.

Although a clearer understanding of the clinical picture and its evolution has emerged in the last few years, definition of the etiology has been complicated by the multiplicity of potential etiologic factors in most cases.⁷ Important

From the Department of Pediatrics, Children's Memorial Hospital, University of Oklahoma Health Sciences Center, Oklahoma City, Oklahoma.
Submitted for publication August 22, 1978.

gaps in our knowledge of the disorder remain, and despite improvement in symptomatic and supportive management, the fact remains that the disease is highly lethal — mortality in reported cases remains about 50% — and survivors, particularly those less than one year of age, may be left with severe neurologic sequelae.⁸

Clinical and Pathologic Features: Reye syndrome is primarily a disorder of childhood with no sex difference; the age of those affected ranges from a few months to adolescence. The clinical features are remarkably uniform. The onset is abrupt. After an illness that is usually rather minor, high fever, change in level of consciousness, coma, and intractable seizures ensue, and most patients die. The course is characteristically biphasic. The prodromal illness most often consists of a mild upper respiratory tract infection, with or without fever. Several children have developed the syndrome in association with clinically documented varicella-zoster infections. In a number of cases, patients were recently exposed to other acute illnesses such as measles, herpesvirus infections, vaccinia, a nonspecific erythematous rash, and hepatitis. The major illness begins from several hours to several days after the prodromal illness. After the sudden onset of illness, the patient's condition deteriorates and is characterized by fever, vomiting, frequently hematemesis, depression of sensorium, generalized convulsions, and coma. Delirium, hypertonia, dilated pupils, and extensor plantar response, have been observed, and the patient frequently assumes a decorticate position. Occasionally, events do not follow this sequence and the patient simply lapses into coma. About half of the patients have hepatomegaly, but jaundice is rare. Although there are no diagnostic laboratory findings, there is usually evidence of severe hepatic dysfunction and ammonia intoxication. The cerebrospinal fluid (CSF) opening pressure is variable, but cellular and protein values are normal. Not infrequently, the concentration of glucose in CSF is low, paralleling the low values in the blood; ketosis is common. Death, most often due to respiratory failure, usually occurs within a few hours or days of onset.^{8,9}

At necropsy the principal findings are those of cerebral edema and fatty metamorphosis of the viscera, particularly the liver. The mor-

phologic changes in the brain are nonspecific and resemble the abnormalities observed in patients who die from other causes. There is no gross or microscopic evidence of any significant inflammatory reaction in the brain or meninges. It is the associated visceral findings that distinguish this disorder from other types of encephalopathy. The liver is usually enlarged and the entire parenchyma is heavily infiltrated with fat, principally triglycerides; glycogen is markedly depleted but the lobular pattern is maintained. Droplets of fat may be seen in the kidney, and occasionally in the myocardial and skeletal muscle cells.⁹

Differential Diagnosis: A clinician faced with a previously well child who has developed convulsions or disturbances of consciousness or both proceeding rapidly to coma is faced with a bewildering array of differential diagnoses. Head injuries, vascular accidents, intracranial space-occupying lesions, and direct infection of the central nervous system must be excluded on the basis of the clinical features and by appropriate investigations. Exogenous toxins may need to be considered as well as metabolic disorders such as hypernatremia, hypoglycemia, hypocalcemia, diabetic acidosis, hypomagnesemia, uremia, water intoxication, and acute porphyria. Other possible diagnoses confusing the picture include hypertensive encephalopathy occurring early in glomerulonephritis before a renal lesion is suspected, and acute toxic encephalopathy, a poorly understood disorder in which convulsions and coma with fever and vomiting develop during such illness as upper respiratory tract infections, gastroenteritis, dysentery, pneumonia, or one of the exanthemata.¹⁰

Only by carrying out liver function studies is the diagnosis likely to be suspected antemortem. If two of the following criteria are satisfied without any other obvious explanation for the clinical biochemical features, Reye syndrome is a probable diagnosis: aspartate aminotransferase level more than two and a half times normal, prothrombin activity less than 60% of normal, and a blood sugar level of less than 3 mmol/L or a CSF glucose of less than 2 mmol/L. A blood ammonia level higher than 0.1 μ mol/L further supports the diagnosis, but hyperammonemia may be transient. Raised serum levels of alanine, lysine and glutamine and a low citrulline are the typical amino-acid pattern. An elevation of serum glutamic oxaloacetic transaminase (SGOT) and serum

glutamic pyruvic transaminase (SGPT) are the only laboratory abnormalities which have been required by the CDC for the diagnosis of Reye syndrome.⁶ Elevation of serum transaminases lacks diagnostic specificity but the presence of normal values is most useful in excluding Reye syndrome as a diagnostic consideration. Confirmation of the diagnosis requires liver biopsy, which can be performed only after the prolonged prothrombin time has been corrected. There is variable but often intense fatty infiltration of the liver, with diffuse cytoplasmic vacuolation of the hepatocytes without nuclear displacement and hepatocellular necrosis.¹⁰

Since the diagnosis of Reye syndrome is difficult, its incidence may be higher than is generally realized. About 40% of children diagnosed in life die. Features associated with poor prognosis include a rapid progression to deep coma, a prothrombin time prolonged more than twice normal, increased intracranial pressure, and electroencephalographic abnormalities.^{10,14} Hyperammonemia bears no correlation with the patient's condition or eventual outcome.¹⁵

Etiology and Pathogenesis: The etiology and pathogenesis of Reye syndrome remain obscure despite intensive investigative efforts during the past several years. Analysis of epidemiologic, animal, and metabolic studies suggests that viral infections precipitate the development of the clinical syndrome. The specific role of the viral infection is far from clear and possible mechanisms include interaction with either a subclinical intoxication or a genetic inborn error of metabolism.¹¹ Most attention has focused on an infectious etiology. Viruses which have been considered as possible incitants include *Herpesvirus hominis*, hepatitis, Coxsackie A, echovirus, adenovirus, reovirus, influenza viruses A and B, and rubella. Most cases occur during the winter and early spring, when the common exanthematous and respiratory viral illnesses are seasonally epidemic. Several cases have been reported after varicella infection. Several workers have suggested a toxic cause from either exogenous poisons, such as aflatoxins, or common medications, since many household chemical and agricultural poisons are known to produce a diffusely fatty liver. It has been suggested that defects in metabolic pathways may also be causally related.⁹

The types of viruses associated with Reye syndrome are varied and include RNA viruses, DNA viruses, viruses with lipid envelopes, and

viruses without lipid envelopes; the mechanism involved in the precipitation of the illness does not appear to relate to morphologic or chemical properties of the virus. The viral infection usually involves multiple systems and the generalized nature of the infection may be more important in the development of Reye syndrome than the type of viral agent.¹¹ The two viral agents most often associated with Reye syndrome are influenza-B and varicella-zoster virus. More cases have been associated with influenza-B infection by epidemiologic methods than with any other agent. Chickenpox appears to be the second most common associated viral illness, though the number of chickenpox-related cases is small.

Hypotheses about the etiology of Reye syndrome assume that the disease is "triggered" by one of these or other viruses and it has been regarded as unlikely that the condition could be a direct result of a virus. Despite the clinical and epidemiologic evidence pointing to an association between influenza infection and Reye syndrome, no viral agent of any kind has been found in more than half of the reported cases in which attempts at viral isolation were made. However, analysis of viral isolation procedures used in published reports reveals that optimum methods for the recovery of influenza virus usually were not used. Moreover, the conventional signs of infection, inflammation and necrosis, are unimpressive in the liver in Reye syndrome. Partin and coworkers¹² reported the recovery of influenza virus (A/Ohio/7/76) from liver, muscle, cerebrospinal fluid, and nasotracheal secretions obtained from a four-year-old boy with Reye syndrome who survived.

One of the proposed explanations for the development of Reye syndrome is the interaction of a viral infection with a subclinical intoxication. The toxins that have been implicated include commonly used medications and exogenous environmental toxins. The interaction of mengo virus and pentenoic acid in rats has been

Harris D. Riley, Jr., MD, was graduated from Vanderbilt University School of Medicine. He is Distinguished Professor of Pediatrics at the University of Oklahoma Health Sciences Center. Certified by the American Board of Pediatrics, Dr Riley is a member of the Society For Pediatric Research, the American Pediatric Society and the Infectious Disease Society of America.

described.¹¹ Other investigators have recently reported similar findings in mice exposed to mouse encephalomyocarditis virus in combination with either DDT or an organophosphate (Fenitrothion).¹¹ These studies have shown that viruses and toxins can act synergistically to produce encephalopathy and fatty degeneration of the viscera in animals and that many of the features of the illness resembled Reye syndrome in humans. There is no evidence for synergistic activity of a virus and a toxin in the pathogenesis of human disease.¹¹

Efforts to link a toxin with a viral infection in children have been unsuccessful. The methods used have included routine toxicologic screening techniques and epidemiologic methods. These studies have shown that many children with Reye syndrome have ingested salicylates and phenothiazines, and there is a suggestion from the investigations reported by the CDC in 1970 that hypoglycemia was more common in children who ingested salicylates.¹¹ Ten of thirty-three children who ingested salicylates and three of twenty-two children who had not ingested salicylates had blood glucose levels of 30 mg/100 ml or less. The epidemiologic methods utilized by the CDC have not been able to correlate severity of prognosis of Reye syndrome with the ingestion of these medications. Other common household items such as pesticides and paints have also been evaluated but without positive correlation with the disorder. Of the drugs that have been implicated, aspirin is the one most commonly ingested and is a likely candidate to be either involved in the pathogenesis or contribute to the severity of the illness. Chronic ingestion of aspirin has been associated with an illness clinically not unlike that of Reye syndrome with encephalopathy, hypoglycemia, and abnormalities in liver function, and it is possible that in some children the interaction of aspirin and a viral infection results in development of Reye syndrome. There is, however, no direct evidence for this interaction. Other potentially toxic agents that need further investigation are agricultural pesticides, insecticides, and herbicides.¹¹

Reye syndrome has been reported to occur more frequently in children residing in rural or suburban locales than in urban settings, but no environmental or other reason for this pattern has been identified to date.¹³

The occurrence of Reye syndrome in siblings

has been reported by several investigators. The illnesses have developed either concurrently or years apart. Some of these observations suggest a genetic predisposition but do not exclude environmental factors. One of the genetic factors that have been proposed is ornithine transcarbamylase (OTC), whose activity has been shown to be deficient in the liver of patients with Reye syndrome during the acute phase of the disease and after recovery. There is also evidence of OTC deficiency in family members of patients with Reye syndrome by protein loading and orotic acid excretion in the urine. In most patients the OTC deficiency is probably secondary to the mitochondrial injury and is reversible. Interpretation of recent data about urea cycle enzymes is difficult because of different ways of expressing enzyme activity levels,^{16,17} and because comparisons between control liver tissue and the fatty tissues in terms of net weight or protein content may be misleading. Additional studies need to be performed on patients in the recovery phase to clarify the role of deficient urea cycle enzymology in the syndrome.¹¹

The role of the hepatic dysfunction in the etiology of the encephalopathy is not known. There is evidence that some of the "cerebral toxins" that have been implicated in hepatic coma can be detected in patients with Reye syndrome. These include blood ammonia, octanoic acid, and amino acids. In addition, the depletion of norepinephrine from the hypothalamus of patients with Reye syndrome is similar to that in rats with hepatic coma. This depletion of physiologic transmitters in brain tissue is consistent with the octopamine hypothesis for hepatic coma.¹¹

Many of the other metabolic studies that have been performed on patients with Reye syndrome have not been performed on patients with other types of acute hepatic dysfunction. For this reason, it is difficult to know if the metabolic derangements that have been observed with Reye syndrome are unique or merely a reflection of hepatic dysfunction. Additional biochemical studies and microscopic examination of brain tissues from patients with Reye syndrome and other forms of hepatic dysfunction with encephalopathy are needed to determine whether the encephalopathy of Reye syndrome is a primary event or secondary to the hepatic dysfunction.¹¹

Care and Management: Disagreement regarding the optimum care of the child with Reye

syndrome exists and will continue at least until the etiology of the disorder is more clearly understood. It is agreed that early diagnosis is essential for effective management, since the disease may progress to irreversible brain damage in as little as 24 hours from onset of the encephalopathy. A clinical triad consisting of prodromal viral illness followed by vomiting, followed by change in mental state has now been confirmed in almost every documented case and is of great value in early diagnosis. As for the nature of the earliest change in mental function, toxic delirium with visual hallucination is common and is associated with a profound amnesic state. In a child who shows the clinical triad, the diagnosis can be heavily supported by liver function studies and if necessary, confirmed by percutaneous liver biopsy. Early diagnosis now becomes largely an education problem.¹⁴

Once an early diagnosis has been established, a rapid method is needed to predict the likely evolution and severity of the encephalopathy. A number of mild cases which never progress to coma are being identified increasingly, and one clearly has to avoid institution of extensive and potentially risky therapeutic measures in such children. Evaluation of the severity of the encephalopathy and of the need for intensive therapy is mainly based on clinical assessment. Attempts at correlating severity with biochemical profiles¹⁸ including ammonia levels, serum creatine phosphokinase (CPK) activity and isoenzymes, serum lactate dehydrogenase (LDH) isoenzymes and SGOT/SGPT ratios have been inconclusive.

For the moment the treatment of Reye syndrome remains supportive and empirical and is directed primarily at protection of the brain from irreversible injury. All other affected organs seem to recover spontaneously. Treatment includes the correction of hypoglycemia, electrolyte abnormalities, acidosis and hypoxia. Artificial ventilation may be required. A reduced fluid intake — 10% dextrose with maintenance electrolytes — is advised initially to minimize the risk of cerebral edema, but this may have to be modified if the patient is dehydrated or if inappropriate release of antidiuretic hormone occurs. Neomycin by nasogastric tube and enema to minimize ammonia reabsorption from the gut seems rational treatment, but is not of proved value; neither is dexamethasone or mannitol, the usual treatment for increased intracranial pressure. The bleeding diathesis

may require correction with fresh frozen plasma or whole blood. The apparent beneficial effects of peritoneal dialysis and exchange transfusion have not been confirmed in some subsequent studies. Potentially hazardous recommendations that have been associated with recovery include glucose and insulin, L-citrulline, and nicotinic acid. All must be considered of unproved value. No data are available on optimum calorie intake or on how calories should be provided.¹⁰

The value of early intravenous glucose to prevent the hypoglycemia which often complicates Reye syndrome is well established. In the mild case, *ie* the child who never progresses to coma, or during the precomatose phase of the illness, this appears to be the only indicated therapy with the possible exception of oral neomycin and cleansing enemas for bowel sterilization. Glucose therapy may already have had an impact, as hypoglycemia in Reye syndrome has become rather uncommon in recent years. Use of adequate glucose receives further support from recent data regarding the pathophysiology of the disease.¹⁴

Cerebral edema leading to increased intracranial pressure in the brain stem often is the immediate cause of death. Caution must be taken not to exaggerate this problem by the use of excessive quantities of intravenous fluids. Two-thirds of the calculated maintenance fluid appears adequate unless the child is significantly dehydrated at the time of hospital admission.¹⁴ Although not consistently effective, osmolar diuretic agents such as mannitol sometimes effectively decrease the cerebral edema of Reye syndrome. Continuous direct monitoring of the intracranial pressure¹⁹ is now increasingly performed in many centers and seems to be critically important in management.

Corticosteroid hormones are frequently used as alternate treatment for cerebral edema. However, studies have shown that omission of corticosteroids does not influence outcome. Evidence that corticosteroids are lipolytic in the human is inconclusive. Recent studies in experimental cerebral edema suggest that corticosteroids are of little value in brain swelling caused by metabolic disturbances, a category in which Reye syndrome presumably falls. For these reasons, omission of steroids from the therapeutic list seems reasonable at this time.¹⁴

Controversy continues regarding attempts to remove possible neuro-toxic substances from

the circulation. Recent unfavorable results with peritoneal dialysis make it unlikely that this technique will be widely used in the near future. Data regarding hemodialysis are unavailable. Exchange blood transfusion continues to be favored in a number of centers. A lengthening list of possible neuro-toxins which are partially removed by exchange transfusions now includes ammonia, free fatty acids, including octeneric and propionic acids, several amino acids, lithocholic acid, and aflatoxin.¹⁴ □

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Children's Memorial Hospital University of Oklahoma Health Sciences Center, P.O. Box 26901, Oklahoma City, Oklahoma 73190.

The Uneasy Peace Between Psychiatry And Religion — The Historical Roots of the Conflict

FACTORS IN THE CONFLICT BETWEEN
RELIGION AND PSYCHIATRY

JAMES A. KNIGHT, MD

Freud, Jung, and other pioneers of psychoanalysis professed agnosticism, but were deeply interested in religion. A review of the conflict with religion from the Bible through to present times reveals some areas of common ground between psychiatry and religion.

During most of the first half of this century, psychiatry and religion were in deep conflict with one another. Sigmund Freud was at the center of much of this conflict but not exclusively so. Psychiatry and religion then moved away from noisy opposition to a more open examination of each other. This open attitude then led to cooperative searching in a common goal of bringing health and wholeness to emotionally disturbed and bewildered people. Although great progress has been made in the cooperative efforts and understanding between psychiatry and religion, there remain residues of conflict and distrust.

Freud's atheism or agnosticism and his repeated attacks on religion brought him into open conflict with the church. Religion was a continually recurring topic in his writings during the entire course of his long and productive life. Freud felt that religious influence arrested the person's growing understanding of the universe and the self, and it was necessary that he give serious attention to this powerful enemy.

Although Sigmund Freud (1856-1939) grew up in an Orthodox Jewish family, he declared openly his atheism or agnosticism. He did this in spite of the fact that he drew heavily on his religious background, especially the oral or kabbalistic tradition in Judaism, in formulating the insights and wisdom about human behavior that became a part of his analytic psychology.¹

It is felt by many that the widespread and longstanding anti-Semitism in Vienna may have been a major factor in Freud's atheism. As early as the eleventh century in Vienna, Jews are mentioned in restrictive decrees and special confiscatory laws. The Jews were forbidden to acquire land and to carry out most trades. Rulers and local governors hired them to carry out unpopular actions such as the collection of

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taxes, and if something went wrong they were made scapegoats. In 1371, Duke Albrecht II and Duke Leopold III carried out a complete confiscation of Jewish assets, cancelling all interest payments to Jewish money lenders and all repayment of capital. In 1406, the Jewish ghetto was burned and plundered. Then in May 1420, because of an alleged friendship between Jews and the Hussites, all the Jews in Austria were arrested and their assets confiscated. Some were given the choice of conversion or death. On March 12, 1421, two-hundred-and-ten Jews were burned at the stake, after rejecting conversion. The homes of the Jews executed became the property of the Duke who gave them to his friends or sold them to the town of Vienna. Later, certain Jews were permitted to return. In 1670, the Jews were again expelled; once more some were exempted; and others later returned. The last public execution of the Jews took place in Vienna in 1878 — the year the religious philosopher Martin Buber was born there. Freud was about twenty-two years old at that time.⁸

Toward the end of the nineteenth century Vienna became the birthplace of both modern Zionism and modern anti-Semitism. Vienna felt the growing influence of Jewish bankers, industrialists, politicians, writers, musicians, and physicians. The most prominent opponent of anti-Semitism was Emperor Franz Joseph I, whose letters show his profound distaste for anti-Semitism. The most inglorious chapter on anti-Semitism was written by the Nazis. There were about 350,000 Jews in Vienna before the Nazis came there; and today there are around 10,000. As you know, Freud was reluctant to leave Vienna when the Nazis came because he was old, did not want to leave his home, and hoped the Nazis would not bother him. Friends such as Princess Marie Bonaparte, Ernest Jones, and the American Ambassador to France finally had to ransom him from the Nazis and take him to London. Thus, from youth to old age, he was immersed in an environment of anti-Semitism in which, Freud felt, the church participated.

It is sometimes implied that Freud was ignorant of the Bible and religion in general and that he was exposed to "bad" religion in his patients more than to a healthy religion. It is evident in his work that he drew much information about religion from his patients' use and

misuse of religion. Just the same, he was quite a student of the Bible and of comparative religion.

Freud was familiar with the Bible and quoted easily and often from either Testament. He had begun to read the Old Testament at age seven. At first he must have been attracted by the illustrations, since the volume he used was the remarkable edition by Ludwig Philippson, containing some five-hundred woodcuts. The text of the Philippson edition is accompanied by a learned commentary, consisting of numerous passages on early history and comparative religion.¹ One can assume that Freud was impressed by the ethical teaching in the Bible, particularly that on the theme of justice, which was always prominent in his teaching. To this early knowledge of comparative religion should be added that which Freud acquired later in his cultural studies of the Roman, Egyptian, and other Eastern religions of antiquity. In general, Freud possessed an unusually comprehensive knowledge of various religious beliefs.

Besides the influence of anti-Semitism in Vienna, Freud and his early colleagues were heirs of a curious double legacy from the eighteenth and nineteenth centuries. These psychiatrists were, philosophically speaking, descendants of the eighteenth-century Enlightenment, that great movement of religious humanism. The emphasis was not on a city of God in heaven but on a heavenly city of persons on earth, wherein a good society was achieved for people and by people, ordered by reason and experience. Although the Enlightenment was not irreligious, its belief in the capability of humankind to control their conditions in life was to a great extent anti-Christian. The other part of the philosophic double legacy which contributed to the general atheism of Freud and his followers was the reductive naturalism of the nineteenth century. Human values emerged in a natural process that is otherwise blind or indifferent to the human enterprise. People make of nature what they can, and it is a foolish illusion to believe that nature is the created organism in which God is working out his purpose.

These two traditions of religious humanism and reductive naturalism came into sharp conflict with the Judeo-Christian tradition. Although Freud denied any interest in the question of philosophical presuppositions, powerful residues of these movements are evident in his system-building and constructs. One can also

observe this influence when exploring the attitudes of many psychiatrists toward personality, freedom, philosophy, ethics, and religion.

Freud's earliest attack upon religion is to be found in an article entitled "Obsessive Acts and Religious Practices," published in 1907. In this paper he stressed the similarity between religious expressions of piety and the obsessive behavior of his neurotic patients. He reiterated and expanded this theme in a series of four volumes which followed: *Totem and Tabu*, 1913; *The Future of an Illusion*, 1928; *Civilization and Its Discontents*, 1930; and *Moses and Monotheism*, 1939. He had no reservations about the ability of psychoanalysis to lay bare the infantile roots of religious belief and practices. While Freud recognized the therapeutic potential in religious sublimations, he insisted that religion represented little more than a neurotic attempt to avoid frightening reality. In stressing the infantile element behind religion, Freud argued that people need faith in God and ceremonial practices as a crutch for human helplessness. He saw religion as a wish-fulfilling compensation for childhood weaknesses that were never outgrown. Freud was aware that religion could assuage guilt feelings, especially those connected with aggressive impulses, and could provide a means for coming to terms with the problem of death. At the same time, this appeared to Freud to be a neurotic way of handling inevitable human conflicts. The fearful and the defensive aspects of religious belief, rather than the loving, loomed largest in his mind. His bold and blunt denunciation of religion was an expression of his unyielding hopes for humankind. He was certain that humankind could do better than in the past, if only they would give up superstition, ignorance, and neurosis. While Freud conceded that religion might serve at times as a constructive resolution of inner conflicts, his work represented a challenge to traditional religious thought. As Paul Roazen emphasizes, Freud explicitly saw psychoanalysis as a scientific and rival way of meeting issues on which previously religion had used magic.⁷

Freud's atheistic philosophy so blinded churchmen that they could not see the monumental contribution he had made through the theory, insights, and techniques of psychoanalysis. The church delayed for a half-century before appropriating and utilizing the psychoanalytic insights so desperately needed in its work of education, training, and counsel-

ing. Although one may be offended by Freud's amateur theology and his materialistic, atheistic, deterministic philosophy, it should be remembered that his philosophic views are totally separate from his psychoanalytic theories and techniques. Thus, his work can be divided into two distinct areas. If he had only developed psychoanalysis and said or written nothing about religion or his atheistic philosophy, he and his work would have been more readily accepted by the church.

The church's response to Freud's atheism and his attacks on religion was a frontal attack on psychiatry, led especially by the Roman Catholic Church. One of the leaders in this attack was the distinguished Catholic clergyman, Fulton J. Sheen. The attack was softened considerably when prominent psychiatrists of the Catholic faith, such as Leo Bartemeier, discussed the matter with His Holiness Pope Pius XII. The message to the Pope and to other religious leaders was that as far as mental illness was concerned the fields were ripe unto harvest and the laborers were few. Therefore, it was time to transcend conflicts and join hands in seeking answers in both the treatment and the prevention of mental illness. The question was asked, in what way was the welfare of mentally ill patients being served by attacking or undermining those who were trying to help them? Long after the major attacks had subsided and cooperative efforts between psychiatry and religion were underway, I had the privilege of

James A. Knight received the BD degree from Duke University Divinity School in 1944, before serving as Chaplain in the US Navy. Later he was graduated from Vanderbilt University School of Medicine, and completed residency training in psychiatry at the Tulane Service of Charity Hospital in 1958. He attended the C. J. Jung Institute at Zurich during 1961 and is certified by the American Board of Psychiatry.

Dr Knight belongs to the Academy of Psychoanalysis, American Psychiatric Association, Society for the Scientific Study of Religion, American Osler Society and has served on several editorial boards including the Journal of Clinical Psychiatry, and on other national advisory committees and societies. He has written eight books and over 50 articles and was the Dean of Medicine and Professor at Texas A & M University, 1974-77.

discussing with Fulton Sheen his part in the attack on psychiatry. He emphasized strongly that his attack had been on the atheistic element in psychiatry and never on psychiatry in general. He went on to say that he had been misunderstood and accused often of a global attack on psychiatry in general but the focus of his attack had always been on the atheistic and reductionistic element in psychiatry and that this could be substantiated by a careful review of the record.

During the past twenty-five years, there have been consistent efforts from both psychiatry and religion for rapprochement and collaboration. Also, there are a number of professionals in this country and elsewhere who are both psychiatrists and clergymen. These persons, trained in both disciplines, have been valuable interpreters in helping those trained in only one to see both sides of the picture.

In rapprochement and collaboration, Carl Gustav Jung should be given recognition for his contribution. His religious attitudes were the first antidote within psychiatry to those of Freud. Freud stressed an analysis of the patient's past in psychotherapy. Jung tended to stress the present life situation and an overall need for a synthesis on the part of an individual. He recognized one of the psychological values of religion as providing an individual's life with unity and meaning. Religion, thus, played a more important role in the therapeutic methods of Jung than in those of Freud. Many Roman Catholic writers, such as Victor White, Louis Beiernaert, Karl Stern, and Gerald Vann, have shown themselves to be in considerable agreement with the Jungian theories of the collective unconscious, of archetypal symbols, and of the innate religious function. On the other hand, there has probably been a closer correspondence between the Protestant tradition and Freudianism. Especially in America, more attention has been given to Freud than Jung by Protestant churchmen. Protestantism has not had the confessional, and possibly this has been one of the reasons why it developed a strong pastoral counseling ministry earlier than Roman Catholicism. Also, the general Protestant approach, regarding techniques and insights, is likely to have more in common with Freudian analysis than Jungian psychology. Possibly C. Macfie Campbell, the Scotsman who was professor of psychiatry at Harvard from

1920 to his death in 1943, was making more than a casual statement when he said that philosophically speaking, psychoanalysis is Calvinism in Bermuda shorts.

SIMILARITIES TO AN OLD CONFLICT BETWEEN SCIENCE AND RELIGION

The conflict between psychiatry and religion has some similarities to an old conflict between science and religion: different ways of knowing and obtaining knowledge. Actually, it is usually not the content of specific scientific theories but the relation of the methods of science to religious beliefs which is likely to trouble thoughtful persons.

Are the methods of science the only avenue to knowledge, thereby requiring religion to follow scientific methods if it is to make any claims concerning truth? In reality, the methods of science and religion are not too different unless one focuses sharply on a literal interpretation of revelation as the disclosure of divine information or the imparting of revealed truths rather than one's interpretation of the significance of historical events.

Both science and religion involve two basic factors: the interaction of experience and interpretation. In science, experience takes the form of observation and experiment, and the interpretative factor is called hypothesis or theory. In religion, the same basic components exist: experience and interpretation. A person's religious experience includes his wonder and gratitude at creation, his response of reverence before what is to him holy and sacred, and his sense of dependence, finitude, and contingency. It involves reflection on the basic structures and conditions of existence. The God of the Bible acts in concrete historical events, in human communities, through individual persons — the prophets, Jesus, His disciples, men and women down through the ages. The people who wrote the Bible were writing of what had happened to them, attempting to interpret their own experience. All of the relationships of God and persons involve experience and interpretation.²

WHY THE UNEASY PEACE REMAINS BETWEEN PSYCHIATRY AND RELIGION

While psychiatry and religion are joining hands in many cooperative efforts, an uneasy peace remains between them. Some of the issues contributing to the uneasy peace can be highlighted in the form of questions. Does

psychotherapy tamper with a person's faith? After analysis and during synthesis, what value system does the patient embrace — his own, the psychiatrist's, or someone else's? Can a patient find God on the psychoanalytic couch? Can psychotherapy remove the encrustations that cover the autonomous religious function within and thereby enable the patient to have a religious experience? Is psychotherapy a form of brainwashing or thought control? Why does psychiatry continue to be reductionistic or mechanistic in its interpretation of religious phenomena or to ask the wrong questions?

A major fear of the church in its conflict with psychiatry has related to the question of whether a person's faith would be erased or his religious values tampered with in psychiatric treatment. Because psychotherapy affects the values which determine life's choices, almost every kind of moral issue emerges during treatment. Psychotherapists console neither themselves nor the church when they insist that their form of treatment is purely technical and that they need take no stand on moral issues. Psychotherapists participate in healing with what they themselves are, as well as with their studied arts. Although psychotherapists may deny giving their patients any value system, patients seem to learn rather quickly their psychotherapists' values and very often incorporate them. The church continues to ask whether a prominent and widely used psychotherapeutic approach has not been so reductionistic that every good work, every deed, and every thought are reduced to some infantile act of the past?

Religious experience and how it is interpreted can be a source of conflict between religion and psychiatry. Protestants have a fairly intellectual and rational approach to religious experience. They teach that by searching the Scriptures, and through the proper interpretation of the Word, one finds or has a religious experience. Roman Catholics usually hold that religious experience comes only through the church and its sacraments and teaching. In other words, the church is the vessel that contains the religious experience and those who get it must do so by drinking from this particular vessel. Thus, it can be quite upsetting to some churchmen to discover that certain patients have found God while lying on a psychiatrist's couch. If theologians approach the matter from the standpoint of Carl Jung and see in each person an autonomous religious function, then

they would realize that a person can come face to face with God without having any relationship to an organized church, in the same way that persons did in the past before the advent of the church. When one can, at least, understand this point of view, one sees more clearly than ever why Jung took the statement of Tertullian, the early church father, who said "man is naturally christian," and changed it to "man is naturally religious."

As for the church's fear that psychotherapy could use a form of brainwashing or thought control in bringing about change in persons, psychotherapists must acknowledge that such could take place. In fact, all of the great agencies of human change — educational, psychotherapeutic, religious, and political — make use of four general approaches to changing people: coercion, exhortation, therapy, and realization. No person has been more lucid in describing the approaches to changing people than psychiatrist Robert J. Lifton.⁶

Lifton describes the message of coercion as that of "You must change and become what we tell you to become — or else." The goal of this type of naked coercion is to produce a cowed and demoralized follower. It is directed at the most primitive of human emotions and stimulates the desire for flight or fight, or to freeze and fear, or submit completely.

The exhortative approach is "You should change — if you are a moral person — and become what we (in the name of a higher moral authority) tell you to become." Exhortation seeks to create converts and disciples of the people who have been changed in accordance with the specific ideological convictions of the exhorter. The appeal is to the individual's wish to be a good person or to become a better one. It capitalizes on pre-existing tendencies toward experience in guilt and shame, including existential guilt.

The therapeutic approach is: "You can change — from your sickly state, and find relief for your suffering — if you have a genuine urge to become healthy, and if you are willing to follow my (or our) method and guidance." Its goal is physical and emotional health and freedom from incapacitating disease and defect. It makes its appeal to that part of a person that is most reasonable, health-seeking, and balanced. The medical profession has always used this approach, and in the emotional sphere it is best exemplified by psychotherapy and

psychoanalysis. Religious and secular ideologies also use this approach or at least make claims on it.

The message of realization is described as: "You can change — in such a fashion that you will be able to express more fully your own potential—if you are willing to confront yourself with ideas and approaches which challenge your present ways of knowing and acting." Lifton describes succinctly the possibilities and hazards of this fourth approach in seeking to bring about change in people. Its aim is to produce persons who express their creative potential fully and who extend their faculties to the utmost in producing the highest level at which they are capable. Although this goal is closely related to that of the therapeutic approach, it is not the same. It may cause rather than relieve pain, and may promote within a person periods of incapacity alternating with creative peaks instead of a continuity of health and strength.

Open approaches to reeducation and change can encourage an experience of personal change very different from that promoted by thought reform or closed systems of thought. Such a change can occur through more or less formal association with religion or psychotherapy. It also takes place through less structured encounters with new people, new ideas, or new experiences. The process of change can be envisioned within a three-step sequence: confrontation, reordering, and renewal.

Confrontation represents a combination of inner impulse and external challenge which creates within a person the simultaneous recognition of the need and the possibility for change. Most behavioral scientists believe that there is in the person a fundamental urge toward change — a force which propels him in the direction of what is new and unknown — ever battling with his opposing tendency to cling exclusively to what is emotionally familiar. Without such an inner assistance from each individual person, the agencies of change could have little success. Thus, external challenge is always related to internal urges to know and to master. Lifton emphasizes that open confrontation causes a questioning of identity different from thought reform's assault upon identity. The experience calls forth the human faculties of introspection and increased self-consciousness. The person often feels the guilt and shame of unfulfillment, stemming primar-

ily from his failure to utilize his rich potential resources.

One advances from confrontation to the phase of reordering. This means embarking upon the work of reeducation and change. As in thought reform, reordering generally includes a personal "emptying" process — some form of confession and exploration of existential guilt. Past emotional patterns are exposed and explored. When the individual views himself in the harsh light of the realities of his own limitations, he may experience the dread of a true sense of tragedy. The emptying process is accompanied by a corresponding absorption of new or re-fashioned ideas and emotions in which the person's own past is reinterpreted. One should have the opportunity to test the personal validity of new ideas, to experiment with new forms of human relationships and creative expression. It is obvious that any person in the process of change reinterprets his past with some ideological bias and an over-critical attitude conditioned by his urge to change. He does find ways, however, to moderate his judgments through both introspection and outside influences, rather than having them further distorted by an immoderate, guilt-saturated milieu.

The final stage consists of a sense of open renewal. The individual views his relationships to old authorities as steps along his personal path toward greater independence. There is an interplay between his concern for who he is and to what he is committing his life. In the wider educational environment he is often able to develop new social indentifications and responsibilities that transcend his family, profession, and previous subculture.

It is quite possible that the developmental phase of late adolescence and early adulthood has special significance for all subsequent personal change. This is a time of major emotional turbulence, great ideological receptivity, and maximum experiential intensity. Many present-day behavioral scientists believe that during any adult change it is necessary to revive in some fashion the predominant patterns of this late adolescent phase of life, probably even more than those of the earlier phases of childhood to which psychology and psychiatry presently direct major attention. This is not to minimize character development in early childhood but to suggest that the altering of adult identity depends upon a specific recapturing of much of the emotional tone which pre-

ailed at the time when this adult identity was formed. This view is suggested by William James' association of religious conversion with the "ordinary storm and stress and moulting-time of adolescence," and his conviction that "conversion is in its essence a normal adolescent phenomenon, incidental to the passage from the child's small universe to the wider intellectual and spiritual life of maturity."³ Thus the "moulting-time" of adolescence establishes within each man a model for later adult change.

How does all of this relate to the discussion of the uneasy peace between religion and psychiatry? One sees a consistent finding emerging from the major investigators of brainwashing as I. P. Pavlov, W. Sargant, J. A. M. Meerloo, and R. J. Lifton. When a person is confronted by stresses of all kinds, when he is fatigued and threatened, when he is filled with conflict and struggling to resolve the conflict, he is a candidate ripe for major changes in his life. In some way, the tablet of the mind softens. The old imprint is wiped away and a new imprint can be stamped there. The opportunity to do the stamping is open to both religion and psychotherapy.

Another factor contributing to the uneasy peace between psychiatry and religion is the tendency on the part of psychiatry to be reductionistic or mechanistic in its interpretations of religious phenomena or to ask the wrong questions. For example, the psychiatrist is quick to ask whether the religious experience of a particular person is genuine or false, normal or pathological. In a sense, this is an inappropriate question. Actually, the focus should be on the reaction to the religious experience and not on the experience itself, if one is to understand human behavior. The reaction to the experience can be either normal or pathological, and that is what should be emphasized.

SOME POSITIVE CONTRIBUTIONS OF PSYCHIATRY TO THE CHURCH

Psychiatry has reemphasized for the church the profound relevance of the message of acceptance. The church's doctrine of divine acceptance, traditionally called the doctrine of "justification by grace through faith" has often been buried under doctrinal rigidity. The doctrine is meant to communicate to persons the good news that they who feel unworthy of being accepted by God can be certain that they are accepted. The pattern in psychotherapy of a nonjudging

and nondirecting acceptance of the emotionally disturbed has had an influence both on pastoral counseling and theological inquiry. The therapist, in helping the patient to accept himself in the situation of guilt, does not do therapy by suspending judgment. The ancient Biblical principle that the law condemns and destroys if it is not preceded by forgiveness often seems more widely accepted in psychotherapy circles than in certain theological ones. Patients will feel it if there is even a trace of condemnation, though never formulated, in the depths of the therapist's mind. If such condemnation exists the therapeutic relationship is destroyed. The good pastor, as well as the psychotherapist, has always known that the deepest guilt feeling comes from the message of grace and not from proclamation of the law. In the world of the gospel guilt is not deadweight but building material. In that context the problem of guilt is the problem of love.

Present-day psychiatry has pushed for a unitary approach to the person and has considered it essential that health and illness be seen in such a way that body, mind, and spirit, as well as interpersonal relationships, are all involved at all times. Thus, religion cannot be attacked as being irrelevant to health and illness. Psychiatry has pointed out to certain of the medical specialties that humanity cannot capitalize upon medicine's scientific efforts unless these efforts can be used in the service of personal and social integration. If modern medical skills restore a person to physical fitness and he continues to suffer from emptiness and anxiety, the physical fitness may be relatively futile or the physical recovery may actually be short-lived.

The emphasis on the autonomous or authentic religious function in the unconscious mind stands as a very great contribution to the understanding of the spiritual life of the person. Carl Jung has written extensively about this function. Jung stresses that religion puts the accent on the imprinter, whereas scientific psychology emphasizes the typos, the imprint: "The religious point of view understands the imprint as the working of an imprinter; the scientific point of view understands it as a symbol of an unknown and incomprehensible content."⁵

CONCLUSION

Psychiatry has spent an enormous amount of time and energy in seeking what religion pur-

ports to be about. The great leaders in the early psychoanalytic movement were consumed by an interest in religion — Freud, Jung, Adler, and others. Shortly after Jung's death, his daughter, Mrs. Bauman, mentioned to me that in many ways her father's entire life had been a religious quest. She went on to say that he saw in most problems confronting a person a religious dimension and always worked in a context of appreciation of this dimension.

Through the work of Jung and others, we have reached the stage where we can distinguish between infantile religion and a healthy mature religion which emphasizes responsibility. And in distinguishing between what is infantile and what is mature religion, the Bible gives us the key for evaluation: "By their fruits ye shall know them."

While the uneasy peace continues between psychiatry and religion, each is pulled toward the other by a mutuality of concerns. Both testify by the very nature of their work that persons can and do change. Each is dedicated to-

ward increasing the capacity of persons to solve their problems and tap their latent resources. Both agree that persons cannot be excluded from participating in the discovery and actualization of their own beatitude; that life can be ordered to good ends which enrich and fulfill personal and communal life. They share a common belief that love and truth generate an atmosphere in which human character matures and is transformed. □

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Louisiana State University School of Medicine, New Orleans, Louisiana 70112.

GONORRHEA

US Department of Health, Education, and Welfare, Public Health Service,
Center for Disease Control, Atlanta, Georgia 30333

CDC Recommended Treatment
Schedules, 1978

Note: Physicians are cautioned to use no less than the recommended dosages of antibiotics.

UNCOMPLICATED GONOCOCCAL INFECTIONS IN MEN AND WOMEN

Drug Regimens of Choice

Aqueous procaine penicillin G (APPG) 4.8 million units injected intramuscularly at two sites, with 1.0 g of probenecid by mouth.

or

Tetracycline hydrochloride* 0.5 g by mouth 4 times a day for 5 days (total dosage 10.0 g). Other tetracyclines are not more effective than tetracycline hydrochloride. All tetracyclines are ineffective as a single-dose therapy.

or

Ampicillin 3.5 g, or amoxicillin 3.0 g, either with 1 g probenecid by mouth. Evidence shows that these regimens are slightly less effective than the other recommended regimens.

Patients who are allergic to the penicillins or probenecid should be treated with oral tetracycline as above. Patients who cannot tolerate tetracycline may be treated with spectinomycin hydrochloride 2.0 g in one intramuscular injection.

Special Considerations

—Single-dose treatment is preferred in patients who are unlikely to complete the multiple-dose tetracycline regimen.

—The APPG regimen is preferred in men with anorectal infection.

—Pharyngeal infection is difficult to treat; high failure rates have been reported with ampicillin and spectinomycin.

—Tetracycline treatment results in fewer cases of postgonococcal urethritis in men.

—Tetracycline may eliminate coexisting chlamydial infections in men and women.

—Patients with incubating syphilis (seronegative, without clinical signs of syphilis) are likely to be cured by all the above regimens except spectinomycin. All patients should have a serologic test for syphilis at the time of diagnosis.

—Patients with gonorrhea who also have syphilis or are established contacts to syphilis should be given additional treatment appropriate to the stage of syphilis.

*Food and some dairy products interfere with absorption. Oral forms of tetracycline should be given one hour before or 2 hours after meals.

Gonorrhea

Treatment of Sexual Partners

Men and women exposed to gonorrhea should be examined, cultured and treated at once with one of the regimens above.

Followup

Followup cultures should be obtained from the infected site(s) 3-7 days after completion of treatment. Cultures should be obtained from the anal canal of all women who have been treated for gonorrhea.

Treatment Failures

The patient who fails therapy with penicillin, ampicillin, amoxicillin, or tetracycline should be treated with 2.0 g of spectinomycin intramuscularly.

Most recurrent infections after treatment with the recommended schedules are due to *reinfection* and indicate a need for improved contact tracing and patient education. Since infection by penicillinase (β -lactamase)-producing *Neisseria gonorrhoeae* is a cause of treatment failure, post-treatment isolates should be tested for penicillinase production.

Not Recommended

Although long-acting forms of penicillin (such as benzathine penicillin G) are effective in syphilotherapy, they have NO place in the treatment of gonorrhea. Oral penicillin preparations such as penicillin V are not recommended for the treatment of gonococcal infection.

PENICILLINASE-PRODUCING *NEISSERIA GONORRHOEAE* (PPNG)

Patients with uncomplicated PPNG infections and their sexual contacts should receive spectinomycin 2.0 g intramuscularly in a single injection. Because gonococci are very rarely resistant to spectinomycin and reinfection is the most common cause of treatment failure, patients with positive cultures after spectinomycin therapy should be re-treated with the same dose.

A PPNG isolate that is resistant to spectinomycin may be treated with cefoxitin 2.0 g in

a single intramuscular injection, with probenecid 1.0 g by mouth.

TREATMENT IN PREGNANCY

All pregnant women should have endocervical cultures for gonococci as an integral part of the prenatal care at the time of the first visit. A second culture late in the third trimester should be obtained from women at high risk for gonococcal infection.

Drug regimens of choice are APPG, ampicillin or amoxicillin, each with probenecid as described above.

Women who are allergic to penicillin or probenecid should be treated with spectinomycin.

Refer to the sections on acute salpingitis and disseminated gonococcal infections for the treatment of these conditions during pregnancy. Tetracycline should not be used in pregnant women because of potential toxic effects for mother and fetus.

ACUTE SALPINGITIS (PELVIC INFLAMMATORY DISEASE)

There are no reliable clinical criteria on which to distinguish gonococcal from non-gonococcal salpingitis. Endocervical cultures for *N. gonorrhoeae* are essential. Therapy should be initiated immediately.

A. Hospitalization should be strongly considered in these situations:

1. Uncertain diagnosis, in which surgical emergencies such as appendicitis and ectopic pregnancy must be excluded.
2. Suspicion of pelvic abscess.
3. Severely ill patients.
4. Pregnancy.
5. Inability of the patient to follow or tolerate an outpatient regimen.
6. Failure to respond to outpatient therapy.

B. Antimicrobial Agents

Outpatients

Tetracycline* 0.5 g taken orally four times a day for ten days. This regimen should not be used for pregnant patients.

or

APPG 4.8 million units intramuscularly, ampicillin 3.5 g or amoxicillin 3.0 g each with probenecid 1.0 g. Either regimen is followed by

ampicillin 0.5 g or amoxicillin 0.5 g orally four times a day for ten days.

Hospitalized patients

Aqueous crystalline penicillin G 20 million units given intravenously each day until improvement occurs, followed by ampicillin 0.5 g orally four times a day to complete ten days of therapy.

or

Tetracycline* 0.25 g given intravenously four times a day until improvement occurs, followed by 0.5 g orally four times a day to complete 10 days of therapy. This regimen should not be used for pregnant women. The dosage may have to be adjusted if renal function is depressed.

Since optimal therapy for hospitalized patients has not been established, other antibiotics in addition to penicillin are frequently used.

C. Special Considerations

—Failure of the patient to improve on the recommended regimens does not indicate the need for stepwise additional antibiotics but requires clinical reassessment.

—The intrauterine device is a risk factor for the development of pelvic inflammatory disease. The effect of removing an intrauterine device on the response of acute salpingitis to antimicrobial therapy and on the risk of recurrent salpingitis is unknown.

—Adequate treatment of women with acute salpingitis must include examination and appropriate treatment of their sex partners because of their high prevalence of non-symptomatic urethral infection. Failure to treat sex partners is a major cause of recurrent gonococcal salpingitis.

—Followup of patients with acute salpingitis is essential during and after treatment. All patients should be recultured for *N. gonorrhoeae* after treatment.

ACUTE EPIDIDYMITIS

Acute epididymitis can be caused by *N. gonorrhoeae*, *Chlamydia* or other organisms. If gonococci are demonstrated by Gram stain or culture of urethral secretions, treatment should be:

APPG 4.8 million units, ampicillin 3.5 g or

amoxicillin 3.0 g, each with probenecid 1.0 g. Either regimen is followed by ampicillin 0.5 g or amoxicillin 0.5 g orally four times a day for ten days.

or

Tetracycline* 0.5 g orally four times a day for ten days.

If gonococci are not demonstrated, the above tetracycline regimen should be used.

DISSEMINATED GONOCOCCAL INFECTION

A. Equally effective treatment schedules in the arthritis-dermatitis syndrome include:

Ampicillin 3.5 g or amoxicillin 3.0 g orally, each with probenecid 1.0 g, followed by ampicillin 0.5 g or amoxicillin 0.5 g four times a day orally for seven days.

or

Tetracycline* 0.5 g orally four times a day for seven days. Tetracycline should not be used for complicated gonococcal infection in pregnant women.

or

Spectinomycin 2.0 g intramuscularly twice a day for three days (treatment of choice for disseminated infections caused by PPNG).

or

Erythromycin 0.5 g orally four times a day for seven days.

or

Aqueous crystalline penicillin G 10 million units intravenously per day until improvement occurs, followed by ampicillin 0.5 g four times a day to complete seven days of antibiotic treatment.

B. Special Considerations

—Hospitalization is indicated in patients who may be unreliable, have uncertain diagnosis, or have purulent joint effusions or other complications.

—Open drainage of joints other than the hip is not indicated.

—Intra-articular injection of antibiotics is unnecessary.

Gonorrhea

C. Meningitis and endocarditis caused by the gonococcus require high-dose intravenous penicillin therapy. In penicillin-allergic patients with endocarditis, desensitization and administration of penicillin is indicated; chloramphenicol may be used in penicillin-allergic patients with meningitis.

GONOCOCCAL INFECTIONS IN PEDIATRIC PATIENTS

With gonococcal infections in children beyond the newborn period the possibility of sexual abuse must be considered. Genital, anal and pharyngeal cultures should be obtained from all patients before antibiotic treatment. Appropriate cultures should be obtained from individuals who have had contact with the child.

PREVENTION OF GONOCOCCAL OPHTHALMIA

When required by State legislation or indicated by local epidemiologic considerations, effective and acceptable regimens for prophylaxis of neonatal gonococcal ophthalmia include:

Ophthalmic ointment or drops containing tetracycline or erythromycin.

or

One percent silver nitrate solution.

Special Considerations

—Bacitracin is not recommended.

—The value of irrigation after application of silver nitrate is unknown.

MANAGEMENT OF INFANTS BORN TO MOTHERS WITH GONOCOCCAL INFECTION

The infant born to a mother with gonorrhea is at high risk of infection and requires treatment with a single intravenous or intramuscular injection of aqueous crystalline penicillin G 50,000 units to full-term infants or 20,000 units to low-birth-weight infants. Topical prophylaxis for neonatal ophthalmia is not adequate treatment. Clinical illness requires additional treatment.

NEONATAL DISEASE

A. Gonococcal Ophthalmia: Patients should be hospitalized and isolated for 24 hours after initiation of treatment. Untreated gonococcal ophthalmia is highly contagious. Aqueous crystalline penicillin G 50,000 units/kg/day in 2 doses intravenously should be administered for 7 days. Saline irrigation of the eyes should be performed as needed. Topical antibiotic preparations alone are not sufficient or required when appropriate systemic antibiotic therapy is given.

B. Complicated Infection: Patients with arthritis and septicemia should be hospitalized and treated with aqueous crystalline penicillin G 75,000 to 100,000 units/kg/day intravenously in 2 or 3 divided doses for 7 days. Meningitis should be treated with aqueous crystalline penicillin G 100,000 units/kg/day, divided into 3 or 4 intravenous doses, and continued for at least 10 days.

CHILDHOOD DISEASE

Children who weigh 100 lbs. (45 kg) or more should receive adult regimens. Children who weigh less than 100 lbs. should be treated as follows:

Uncomplicated Disease

Uncomplicated vulvovaginitis, urethritis, proctitis or pharyngitis can be treated at one visit with:

Amoxicillin 50 mg/kg orally with probenecid 25 mg/kg (maximum 1.0 g).

or

Aqueous procaine penicillin G 100,000 units/kg intramuscularly plus probenecid 25 mg/kg (maximum 1.0 g).

Special Considerations

—Topical and/or systemic estrogen therapy are of no benefit in vulvovaginitis.

—Long-acting penicillins, such as benzathine penicillin G, are not effective.

—All patients should have followup cultures and the source of infection should be identified, examined and treated.

Gonococcal Ophthalmia

Ophthalmia in children is treated as in neonates but the dose of penicillin is increased to 100,000 units/kg/day intravenously.

Complicated Infections

Patients with peritonitis or arthritis require hospitalization and treatment with aqueous crystalline penicillin G, 100,000 units/kg/day intravenously for seven days. Aqueous crystalline penicillin G 250,000 units/kg/day intravenously in 6 divided doses for at least 10 days is recommended for meningitis.

Allergy to Penicillins

Children who are allergic to penicillins should be treated with spectinomycin 40 mg/kg intramuscularly. Children older than 8 years may be treated with tetracycline 40 mg/kg/day orally in 4 divided doses for 5 days. For treatment of complicated disease, the alternative re-

gimens recommended for adults may be used in appropriate pediatric dosages.

These recommendations were established after deliberation with these therapy consultants:

Harold C. Neu, MD, College of Physicians and Surgeons, Columbia University; Erwin H. Braff, MD, San Francisco Department of Public Health; Gary Cunningham, MD, Southwestern Medical School, Dallas; King K. Holmes, MD, PhD, USPHS Hospital, Seattle; Franklyn Judson, MD, Department of Health and Hospitals, Denver; William McCormack, MD, State Laboratory Institute, Boston; Edwin M. Mears, Jr., MD, New England Medical Center, Boston; John D. Nelson, MD, Southwestern Medical School, Dallas; Morton Nelson, MD, Orange County, California; Suzanne M. Sgroi, MD, Suffield, Connecticut; Frederick Sparling, MD, School of Medicine, The University of North Carolina, Chapel Hill; Lt. Col. Edmund C. Tramont, Walter Reed Army Medical Center, Washington, DC.

Oklahoma State Department of Health Division of Data Management

The Division of Data Management has three distinct activities: 1) the statistical analysis of data, 2) electronic data processing, and 3) processing of birth and death statistics as a participant in the National Cooperative Health Statistics System. Two areas, Public Health Statistics and Data Processing, make up this division.

The Public Health Statistics Section serves the other divisions in the Health Department as well as other agencies and authorized individuals or organizations engaged in research, planning and evaluation. Recently, statisticians in Public Health Statistics began using computer software as an aid in doing statistical studies. Public Health Statistics will be able to assist other service areas on how to use the computer in a direct manner without having to become computer programmers and without the assistance of computer programmers. Thus, Public Health Statistics is now providing an additional service which will increase the analytical capabilities of the health workers who deal with a wide range of data, including field-gathered



News From The Oklahoma State Department of Health

data on air quality, water quality, emergency medical services, chronic diseases and communicable diseases.

Over the last year, Public Health Statistics coded 70,800 birth and death certificates for the purpose of statistical analysis, distributed 9,200 publications, produced 14 publications in addition to *Oklahoma Health Statistics*, answered 400 requests from the general public and news media, and responded to four large data requests from organizations.

Data Processing serves all areas in the Health Department by providing computer systems designed to help them carry on their activities. About fifty percent of the computer systems developed are scientific and engineering. The other half are for business, accounting and record handling. □

COMMUNICABLE DISEASES IN OKLAHOMA FOR MARCH, 1979

DISEASE	March 1979	March 1978	February 1979	Total To Date 1979	1978
Amebiasis	2	4	3	5	7
Brucellosis	—	—	—	—	1
Chickenpox	—	—	—	—	—
Encephalitis, Infectious	1	1	1	2	1
Gonorrhea (Use Form ODH-228)	962	1168	979	3056	3070
Hepatitis, A, B, Unspecified	71	92	29	110	164
Leptospirosis	—	—	—	—	—
Malaria	—	—	—	—	—
Meningococcal Infections	10	3	4	16	8
Meningitis, Aseptic	2	3	1	4	10
Mumps	—	—	—	—	—
Rabies in Animals	33	11	17	61	39
Rheumatic Fever	—	—	—	—	—
Rocky Mountain Spotted Fever	—	—	—	—	—
Rubella	12	—	4	16	3
Rubella, Congenital Syndrome	—	—	—	—	—
Rubeola	2	4	1	3	7
Salmonellosis	20	8	15	47	30
Shigellosis	24	6	16	52	25
Syphilis, Infectious (Use Form ODH-228)	14	7	3	24	30
Tetanus	—	—	—	—	—
Tuberculosis, New Active	33	37	50	104	87
Tularemia	—	—	—	—	—
Typhoid Fever	—	1	—	—	1
Whooping Cough	2	2	—	2	5

Ad Hoc Committee Reports Finding Five Operable Procedures

Members of the OSMA Council on Medical Services discussed the findings of an Ad Hoc Committee on Obsolete Medical Procedures, the current status of the Oklahoma Health Systems Agency and physician placement in an April meeting.

The Ad Hoc Committee found five procedures on the National Association of Blue Shield Plans and American College of Physicians (ACP) joint study of obsolete procedures that are still practiced in Oklahoma.

Committee members asked Oklahoma Blue Shield to justify the inclusion of the five procedures on the obsolete list of medical procedures. These will not be reimbursed for on a routine basis.

Council members also discussed the ACP policy statement which recommends that no diagnostic tests including blood hemoglobin, urine analysis, biochemical blood screen, chest x-ray and electrocardiogram should be required as routine procedures for hospital admissions. It was agreed that routine tests drive up the cost of medical care, but members of the Ad Hoc Committee felt that a blanket statement was not the answer.

Therefore, they drafted the following statement: "The OSMA Ad Hoc Committee on Obsolete Medical Procedures opposes the statement of the American College of Physicians, but agrees with continuing routine admitting examinations, as long as the hospital (medical community) can justify the necessity and identify specific population groups for which these tests will be administered and that they would be handled in a cost effective manner."

In other business the current status of the Oklahoma Health Systems Agency was reported. After a lengthy discussion, the Council accepted a recommendation to be supportive of the OHSA effort by providing physicians for service on committees, councils and boards.

Council members also heard a brief report on the Physician Placement. □

The Need for Anatomical Donations

Because of a significant cadaver shortage in Oklahoma, the Anatomical Board of the State of Oklahoma is attempting to make certain professional organizations and the general public

aware of this problem. The Anatomical Board, which is made up of representatives from all institutions that utilize the cadaver for educational purposes, is responsible for implementing laws which relate to the scientific use of bodies of deceased persons.

The reason for the shortage is the tremendous increase in demand for the cadaver. Until recently, the University of Oklahoma Medical School and the Department of Anatomy were the primary users of cadavers. At this time, there were many cadavers in reserve. The case is not the same today.

In the past two years cadavers have been purchased from the State of Kansas and the State of Florida. This year an out of state purchase is again planned. Those schools which utilize remains today are: The University of Oklahoma Colleges of Medicine, Dentistry, Nursing and Health; University of Oklahoma Schools at Norman; Oklahoma Osteopathic School of Medicine; Oral Roberts University Medical and Dental Schools; and Central State University.

Oklahoma physicians can help by advising patients, relatives, or other individuals who inquire about donating their bodies or the remains of a loved one for such purposes that such assignments are appropriate, essential and easily possible. Specific and detailed information can be obtained by writing or calling:

The Secretary
Anatomical Board
P.O. Box 73190
Oklahoma City, Oklahoma
Phone: (405) 271-2424

There are two ways a body may be donated. If no institution is specified as the recipient of the donation, the body may be used by any of the institutions as needed. If a specific institution is designated, the Anatomical Board will see to it that such institution receives the remains. For example, if a body is donated to Oral Roberts University by name or the University of Oklahoma Health Sciences Center by name, the staff and students of the designated recipient only will use it for study.

It is hoped that more citizens of the state will make anatomical donations, and that organizations such as the Oklahoma State Medical Association will encourage them to do so. The need is great and urgent. The objectives are humanitarian.

David Garrison, PhD
Member,
Anatomical Board of the
State of Oklahoma



Keep Insurance Language Simple

All language in insurance policies should be easily understood by the policy holder, Representative Bill Robinson, D-Holdenville, stated in House Bill 1341. The bill requires the insurance commissioner to disapprove any form of policy, application, rider or endorsement if it is not in simple language.

HB 1341 spells out coverage and the size of type. It also requires a statement of applicable

category of coverage afforded by the policy, a description of the principal benefits, summaries of principal exclusions and renewal provisions.

It directs the insurance department to adopt rules and regulations establishing minimum standards of benefits and identification for each category of health insurance. ☐

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Home Health Care Insurance Skimpy

If man can get to the moon and live to tell about it, surely he can develop insurance coverage for home health care, says the director of the Oklahoma County Visiting Nurses Association (VNA).

"Of course, guidelines and limits will have to be set on the type of care covered or some people will abuse the option," said Alma Pauli, RN, MPH. "It is a waste of skills to have a nurse in the role of companion just because insurance companies and third party coverage will not reimburse for the maintenance of Home Health Aides."

The VNA is funded through United Way, Areawide Aging Agency, third party payers (Medicare and Welfare), and donations.

Pauli disagrees with Medicare's policy to reimburse activities only with acute illnesses.

"We see a lot of patients who need intermittent care or a part-time aid and an occasional visit from the nurse. A voluntary non-profit organization, VNA needs to be reimbursed for the time our speech therapists, medical social workers, home health care aides, physical therapist and hospital discharge planners spend in the care of the homebound patient," the director said.

She is not alone in the fight for maintenance coverage. The American Medical Association recently drafted model state legislation to encourage home health care. The proposed law requires health insurers to make available home health care benefits for services rendered by a licensed home health agency.

Even the White House Administration has lent its support to home health care coverage. Many patient days in medical institutions can be eliminated through early discharge to home care.

According to an HEW study, one-third of the patients now residing in nursing homes could be adequately cared for in their own homes. A Government Accounting Office report stated, "There is a consensus among health care authorities that about 25 percent of the patient population are treated in facilities which are excessive to their needs."

Recognized as an alternative to hospitals or nursing homes, home health care is a less expensive means of providing health services to

those who do not need twenty-four hour a day professional supervision.

A home health care patient is taught self-care and good health practices. He is aided in securing other services such as meals, transportation and dental services.

Seven states have already enacted legislation to encourage home health care. Oklahoma is not one of them. □

Oklahoma Physician Reaches Century Mark

Edward A. Abernathy, MD, of Altus, celebrated his 100th birthday April 15. He attributes his longevity to his 60-year career as a physician.

"I knew the ill effects some indulgences could have on the body. If I lived a hundred times over I would be a doctor every time," he said. "I am a good example of clean living. I only drank one cup of coffee in my lifetime and I have never used tobacco or alcohol. See how steady my hands are."

The steadiness belies the 100 years of the ear, eye and throat physician.

After several years of teaching in the public schools, Dr Abernathy borrowed the money from a friend in the mercantile business to go to medical school. At the age of 24 with a wife and family, he enrolled in the Kentucky School of Medicine at Louisville and graduated in July, 1907. He opened a practice in Hollis before moving to Altus in 1909.

He had an office upstairs over the drug store in Hollis and when he moved to Altus the first place he went was to the pharmacist to set up a practice. Today, it is just the opposite, the drug-gist comes to the physician, he said.

Born in 1879 at Thornton, Arkansas, the seventh of eight boys, he came to Hollis, Oklahoma Territory, in 1898 with two of his brothers. He recalls the cold winters, problems of the pioneer physicians and his first car.

"It was an Overland, the second car in Altus. Another doctor in town had purchased the first, a one-cylinder Cadillac," Dr Abernathy recalled.

Retired at 83 years, Dr Abernathy has been active in the First Baptist Church teaching Sunday School classes, where he sang in the church choir until recently. He enjoys country music and the Grand Ole Opry. He reads and watches baseball. □

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**AMA, FDA Focus
On Darvon Ban**

"When taken as directed" may be a famous last phrase for the analgesic Darvon. Reports of death due to misuse of the drug have Ralph Nader's Health Research Group demanding that the Federal Drug Administration ban or restrict the drug.

The drug was prescribed over 31 million times last year. At recent hearings, Nader's group pointed out that Darvon was a factor in over 500 deaths in 1978. Its pharmacological properties are similar to those of narcotics, and its availability maximizes abuse or accidental overdose. Nader's health researchers propose the banning of telephone prescriptions and re-fills.

HEW Secretary Joseph Califano has denied Nader's petition to ban Darvon and directed the FDA and the Drug Enforcement Agency (DEA) to report a full scientific review of the issue by June 1.

In view of the drug's propensity to produce dependence, the DEA has decided not to place Darvon under the same rigid controls imposed on opiate drugs until the study is completed. The final decision will be made by July 1. □



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Deaths

DANIEL R. STORTS, MD
1931-1979

A 47-year-old Tulsa physician, Daniel R. Storts, MD, died April 15, 1979. Born in Sallisaw, Oklahoma, Dr Storts was graduated from the University of Oklahoma College of Medicine in 1956. He had been in general practice and industrial medicine in Holdenville, Oklahoma and Tulsa. He was a former chairman of the Southern Medical Association's industrial medicine and surgery section.

CHARLES F. ENGLES, MD
1917-1979

Charles F. Engles, MD, Oklahoma City general practitioner, died April 21, 1979. Dr Engles was born in Henryetta and moved to Oklahoma City from Durant in 1947. He was graduated from the University of Oklahoma College of Medicine in 1951. Among his survivors are two Durant physicians — Leroy L. Engles, MD, and Robert Engles, MD.

THOMAS P. BIGBEE, MD
1933-1979

Thomas P. Bigbee, MD, Mooreland physician died April 16, 1979. Dr Bigbee, 45, was a native of Chicago, Illinois and was graduated from the University

of Maryland School of Medicine in 1964. The general practitioner had practiced in Salisbury, Maryland, Seiling, Oklahoma, Edmond, Oklahoma and Mooreland. He was a diplomate of the National Board of Medical Examiners.

RICHARD M. TALIAFERRO, MD
1916-1979

Well-known Ada surgeon, Richard M. Taliaferro, MD, died March 30, 1979. Dr Taliaferro was born in Lynchburg, Virginia and was graduated from Duke University School of Medicine in 1941. Following postgraduate training and service with the US Navy, he established his practice in Greensboro, Tennessee. In 1962, he moved to Ada. Dr Taliaferro was a fellow of the American College of Surgeons and a diplomate of the American Board of Surgery.

STEVE H. BAKER, MD
1948-1979

Steve H. Baker, MD, Yukon internist, died in an automobile accident near Enid, March 30, 1979. A native of Austin, Texas, Dr Baker was graduated from the University of Texas Medical Branch, Galveston, in 1974. His residency training in internal medicine and hematology-oncology, was taken at the University of Oklahoma Health Sciences Center. At the time of his death, Dr Baker was an emergency room physician in Enid. Dr Baker was a member of the American College of Physicians and the Phi Beta Pi. □

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Physicians Receive Teaching Honors

Three Tulsa physicians received 1979 Aesculapian Awards for superior teaching at the University of Oklahoma Tulsa Medical College.

Dixon N. Burns, MD, Merlin J. Kilbury, MD, and Fran Rash, MD, were selected by student vote for the traditional medical teaching honor named for Aesculapius, the Greek god of healing.

Dr Burns, founder of the Women's Clinic and a third generation physician, is clinical professor of obstetrics and gynecology. He is a graduate of the University of Mississippi and Vanderbilt University School of Medicine.

An assistant professor of surgery since 1977, Dr Kilbury is a graduate of Vanderbilt University and the University of Arkansas School of Medicine.

Dr Rash, senior pediatric resident, was cited for outstanding teaching. He is a graduate of North Dakota State University and the University of North Dakota College of Medicine.

Runners-up for the awards were F. Daniel Duffy, MD, (faculty), chairman of the Department of Internal Medicine, and Dan Baxter, MD, obstetrics and gynecology resident.

Names of the physicians will be inscribed on the permanent Aesculapian plaque on display at the college. □

BOOK REVIEWS

DAVIS-CHRISTOPHER TEXTBOOK OF SURGERY. The Biological Basis of Modern Surgical Practice. 11th edition, Edited by David C. Sabiston, Jr., 2,508 pages with illustrations. \$39.75. Philadelphia: W. B. Saunders Co., 1977

This is a broad and up-to-date textbook of surgery. As might be anticipated, the amount of material devoted to the various sub-disciplines varies widely. Gynecology and urology together

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have less coverage than does transplantation alone. About one-fourth of the total text is devoted to cardiovascular and thoracic surgery. The fifty-nine chapters, in general, follow the usual pattern of basic surgical topics and organ systems. However, the text is "spiced" with certain shorter chapters on diverse subjects such as bites and stings and the rationale and scientific basis of current examinations in surgery. There is also coverage of other topics which one might not expect to find in a textbook of surgery, computer applications being such an example. The short historical essay and annotations to bibliographic references make for interesting reading and should be valuable to students and house officers. Personal preferences and occasional dogmatism expressed by the authors are included without apology. The 115 page index to this 10½ lb book is amply detailed and adequately cross-referenced to make it a useful tool. Omission of a separate name index is a minor deficiency. Illustrations and photographs are appropriate and technically well-done.

Dr Sabiston has done a skillful job in editing this large tome. Like the previous editions, it can be recommended. □

Harris D. Riley, Jr., MD

DISORDERS OF THE RESPIRATORY TRACT IN CHILDREN. 3rd edition. Edited by Edwin L. Kendig, Jr., and Victor Chernick. Philadelphia: W. B. Saunders Co., 1977, 1,115 pages with illustrations, \$47.50.

The first two editions of this book have justifiably been the primary reference for physicians caring for children with disorders of the respiratory tract. In the past and still — in most sections of the country, the care of young people with respiratory disorders has been fragmented among pediatricians, otolaryngologists, surgeons, pulmonologists and more recently neonatologists. The sub-specialty of pediatric pulmonary disease is coming into its own.

It is thus timely that Drs Kendig and Chernick came out with the third edition of this comprehensive text. The second edition, published in 1972, was written by 34 authors and contained 61 chapters and 816 pages. The new third edition has 45 contributors, contains seven new chapters and has 1,115 pages. The authors are recognized authorities in their respective fields. The second edition was divided into two volumes, volume two being concerned with otolaryngologic disorders in children. This volume has been dropped with the third edition, which contains only one chapter dealing with the tonsils and adenoids.

The organization of the text is excellent. All chapters have been rewritten. The seven new chapters deal with diagnostic pulmonary radiology, antimicrobial therapy, pulmonary function testing in the office and clinic, drowning and near-drowning, emphysema and alpha-1-antitrypsin deficiency and nonasthmatic allergic pulmonary disease.

There is not nearly as much overlap as would be expected with a multi-authored text such as this. The chapters are written by experts who include their own experiences together with extensive review of the literature. Of course, certain chapters are not as strong as others, but overall there is consistency in the level. Most chapters contain up-to-date bibliographies. More than 400 illustrations, the majority of which are technically excellent, are included. Every physician dealing with respiratory problems in children should own this book or have ready access to it. □

Harris D. Riley, Jr., MD

ATLAS OF NEONATAL ELECTROENCEPHALOGRAPHY. By Sarah S. Werner, Janet E. Stuckard, and Reginald G. Bickford. New York, New York: Raven Press, 1977, 224 pages with illustrations., \$65.00.

Although a number of books dealing with electroencephalography exist, very few are devoted to the technique of obtaining and interpreting electroencephalograms (EEGs) dur-

ing the neonatal period. This atlas thus serves to fill a void. It is divided into five chapters with a brief text and representative EEG illustrations included with each topic. In the first chapter, the authors discuss the techniques and problems of recording the EEG in neonates and emphasize the importance of monitoring other physiologic variables, such as movements, respirations and others along with the EEG activity. The second chapter discusses the different physiologic parameters of the awake and sleep states of premature infants at different ages. This is followed in the third chapter by a review of normal EEG patterns of premature and full-term infants. The fourth chapter is concerned with abnormal EEG findings in neonates and contains numerous illustrations of the various types of abnormalities encountered in this age group. The fifth chapter is concerned with advanced computer techniques, such as the compressed spectral array and response — averaging studies and how these can be useful in further evaluation of neonates.

The EEG illustrations are well-displayed on large pages and illustrate many examples of normal and abnormal patterns in neonates. The text provides an up-to-date pertinent review of the literature. This book is a welcome addition. □

Harris D. Riley, Jr., MD

VIRAL DISEASES OF THE FETUS AND NEWBORN (Major Problems in Clinical Pediatrics, Vol. 17). By James B. Hanshaw and John A. Dugeon. Philadelphia: W. B. Saunders Co., 1978. 372 pages with illustrations. \$20.00.

This monograph — another in the series, *Major Problems in Clinical Pediatrics* — is an important contribution to the literature dealing with problems of the fetus and the newborn. The authors are well-qualified to author such a book because of their contributions in the field. This particular volume is a thoroughly comprehensive monograph that describes the diagnosis, manifestations, laboratory studies and pathophysiology of the major recognized viral infections in the newly born infant as well as in the fetus.

There are individual chapters on the major viral diseases. In addition, chapters are included on developmental immune mechanisms, laboratory diagnosis, preventive aspects and chemotherapy of viruses. The chapters on serologic tests in the diagnosis of viral diseases and on immune mechanisms in the newborn are excellent. That dealing with hepatitis virus is not as up-to-date as some of the others.

All in all, this is an excellent book that can be highly recommended. □

Harris D. Riley, Jr., MD

Miscellaneous Advertisement

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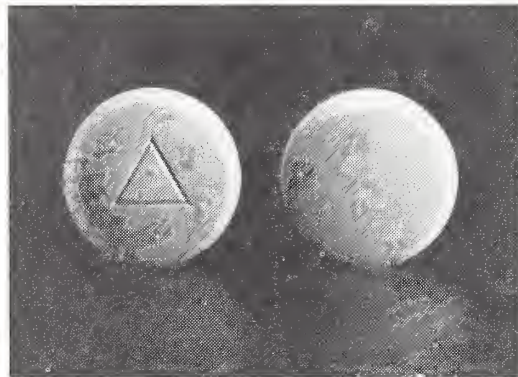
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The Maker

Examining a Few Myths About Prescribing.



Increasing pressure is being put on the practicing physician to prescribe drugs generically. You are told that brand-name products are universally “expensive” and generic versions are relatively “cheap.” To make this case, the most extreme (rather than typical) price differentials are cited. Thus, consumers are led to believe that such differentials are commonplace. Even your knowledge and your motives as a physician are questioned.

Understandably, these views have created myths. We think it's time to examine them in the light of all the facts and ramifications.

MYTH: There are no differences in quality and performance between brand-name products and their generic counterparts. The corollary is that there are no differences among products made by high-technology, quality-conscious, research-based companies and those made by commodity-type suppliers.

FACT: The Food and Drug Administration does a good job in monitoring a generally excellent drug supply. Still, it has nowhere near the resources to guarantee the quality and bioavailability of all marketed products at any given time. Just a few months ago, for example, it noted that batches of tetracycline HCl capsules which met official monograph requirements were

not bioequivalent to a reference product. As you know, there is substantial literature on this subject affecting many drugs, including such antibiotics as tetracycline and erythromycin. The record of drug recalls and court actions affirms strongly that there are differences among pharmaceutical companies and their products. Research-intensive companies have far better records than those that do no research and may practice minimum quality assurance.

MYTH: Industry favors only “expensive” brand names and denigrates all generics.

FACT: PMA companies make 90 to 95 percent of the drug supply, including, therefore, most of the generics. Drug nomenclature is not the important point; it's the competence of the manufacturer and the integrity of the product that count.

Getting Richer

One Sunday afternoon about a dozen years ago I received a telephone call from the nurse who was helping care for an elderly patient of mine in a local nursing home. It was an emergency and the family wanted me to go see my patient immediately. She had apparently suffered another in a series of strokes and was thought to be dying. A spokesman for the family, also contacted by phone, had expressed the desire to have "everything possible done for Mama."

I left my home — and the television coverage of an exciting football game at 2:40 PM. I drove my car through a freezing rain over the 11.4 miles of icy streets to the nursing home and my patient's bedside. She was moribund. The intravenous fluids which I started "—We can't find a vein, doctor—" and the intravenous dexamethasone which I provided "—We'll have to order that and it will take at least two hours to get it—" prolonged survival, but only briefly. My patient died. Members of the bereaved family arrived an hour later, animated with the hostility born of guilt and grief. I had just completed the extensive paper work attending such an event and was able to spend the subsequent forty minutes explaining the circumstances for the family and attempting to comfort them. "Mama" had died in her ninety-fourth year of life.

I drove the 11.4 miles back to my home. The rain had stopped but the streets were treacherous in the gloomy twilight. I arrived home at 6:10 PM, in time to join my family for the evening meal.

Medicaid "allowed" and paid ten dollars of my forty-dollar claim, but only after I had prepared and submitted a narrative "justification" in addition to the usual multi-page claim for my fee. The check arrived weeks later. It did not include any allowances for interest or penalty.

Last month a nurse employed by a local nursing home notified me that it was "time for Mrs Smith's annual exam to re-certify her need for assistance." Shortly thereafter I received in

the mail an "authorization" from one of the state agencies. It included — in a glut of other report forms and claim forms — an "Authorization (to perform) a general physical examination, including urinalysis, for determination of eligibility."

As Mrs Smith was bedfast and no patient-transportation costs had been "authorized," it was necessary for me to go to the nursing home to examine her. So, one evening after a full day's work, I left my home at 7:45 PM, drove my car 4.2 miles to the nursing home, conferred with one of the nurses on duty, reviewed Mrs Smith's chart, performed the "authorized" examination wrote a note on the progress sheet, approved the prevailing orders, got back in my car and drove 4.2 miles back to my home. I arrived at 9:17 PM. The following day I completed the examination form — a detailed elucidation of the medical history, physical findings, treatment plans, diagnoses, evaluation and prognosis — and signed them all, put them in an envelope and mailed them. About three weeks later, the whole batch was returned to me. I had not signed one of the (duplicate) forms, I had not included the date of the examination on another of the forms and I had not included my social security number on the claim form. After attending to these deficiencies, I put all the forms in an envelope and again took the bundle to the post office. Two weeks later I received a check in payment for my efforts. The amount "authorized" was the amount paid: twenty dollars!

Where will this crazy, spiraling inflation stop? In 1967 I was paid ten dollars for three hours and thirty minutes of my time on a Sunday afternoon and for driving my car 22.8 miles. Just twelve years later I was paid *twice* that much for only one hour and thirty-two minutes of my evening and for traveling only 8.4 miles in my own car! Of course, this doesn't include the 46 minutes required to complete and mail the forms necessary to collect the more recent twenty-dollar windfall, but never mind: inflation surely will bankrupt all our state and federal health care agencies!

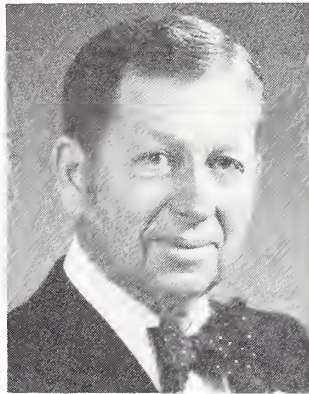
No wonder all doctors are rich. We're all overpaid. And we're all getting richer. *MRJ*

Salutation

One of the privileges of the Presidency of the OSMA occurred to me shortly after the Annual Meeting. It was the opportunity to participate in the celebration of an epic in the life of one individual. In McAlester the congratulations were for Dr E. H. Shuller upon the completion of 50 years of medical practice. I did not know him as well as I would have liked, but meeting him made me want to know all of you who have completed 50 years of service. For the rest of us, do we know what 50 years of medical practice means?

Both my father and my father-in-law have had the good fortune of over 50 years of medical practice. Dad wrote at this important medical anniversary, "Like Job no matter what the trials and tribulations were I never lost the faith."

These 50-year celebrants have each served their fellowman in many ways. Their varied interests, their civic and community responsibilities, their many accomplishments even outside their medical field are beyond enumeration here. They made a remarkable addition to the betterment and quality of life. For the people of their areas human relationship was



made more wonderful by their care and friendship, one to another.

Do we all realize the massive amount of work done by the physician in his community? Using a minimum figure of 30 patient-visits per day in a six-day week, there are 180 office-care visits. Most of these men, whom we salute, see patients even on Sundays. These figures do not include hospital visits, operations, or deliveries.

Allowing 50 weeks a year, indeed if they did not work 52 weeks a year, the figures become 9,000 patient-visits a year. In 50 years it becomes 450,000 patient-visits. Add ten per cent for epidemics and the resultant minimum figure grows to almost half a million. Just think there are one-half million patient visits for history, examination, diagnosis, treatment and prescription. There are more than this when surgery, obstetrics, hospital visits, advice and counsel are added. What a splendid life of dedication and service this is!

We salute each of you who have, and will have, completed your 50 years of medical practice! In reverence dedicated to you,

"Have you noticed my servant Job. He is the finest man in all the earth, a good man who fears God and will have nothing to do with evil."

H. M. McLebrun, M.D.

MAST Pants — A Successful Adjunct For The Critically Injured Patient

ROBERT J. WILDER, MD
MARCUS R. BARBER, RN

The military anti-shock trouser is as important to hypotension as mouth-to-mouth breathing is to cardiopulmonary resuscitation.

All emergency personnel should be familiar with its use and the MAST pants should be available to all emergency personnel.

The critically injured patient requires immediate prehospital life support until definitive procedures can be carried out. Obviously, inadequate oxygenation and tissue perfusion result in permanent damage to kidneys, lungs and brain. In the past it has been advocated that prehospital personnel be instructed in the technique of intravenous therapy and administration of electrolyte solutions, blood substitutes or blood. Intravenous therapy has certainly been helpful, but this requires invasive techniques under conditions of poor lighting, nonsterile surroundings and little assistance.

In 1903, Dr George Crile first indicated the value of applying external pressure to the lower extremities and body for treatment of hypotension. Recently a revival of techniques

for external counter pressure has been developed to control hemorrhage and shock for use by prehospital and hospital personnel. Military Anti-Shock Trousers (MAST pants) for the treatment of shock were first tested clinically in the early 1970's.¹ Using MAST pants, a conservative estimate is that 750 to 1,000 cc of whole blood can be autotransfused from the lower extremities and abdomen into the vital circulation of the heart, lungs and brain. In the standards for essential equipment for ambulances, the Committee on Trauma of the American College of Surgeons estimates that as much as 2,500 cc of blood from the areas below the diaphragm may be shunted into the heart-lung-brain circuit.² In Oklahoma, many ambulance services and hospitals are beginning to utilize MAST pants. It is important for physicians who receive these patients in hospitals to be aware of this new technique, its indications and its hazards.

The MAST device works much like a blood pressure cuff, and using Velcro straps is easily applied to the patient in the field. The patient is laid on the trousers. The legs are wrapped, then the abdomen. A small foot pump is attached with tubing and valves that allow individual inflation of each leg and the abdomen. The pants are inflated to about 104 mm of mercury to force an autotransfusion of 750-to-1000 cc of blood back into the patient's upper circulation. The Velcro straps are designed not to hold above a pressure of 104 mm of mercury. The ability to transfuse back into the heart, lungs, brain and circulatory system a signif-

From the Department of Emergency Medicine and Trauma, University Hospital and Clinics and The Division of Emergency Medical Services, Oklahoma State Health Department

icant quantity of blood without direct invasive techniques and within a minute or two has proven most effective in the field.³⁻⁶ As a result, in October 1976, the American College of Surgeons revised their list of minimum equipment for ambulances to include prehospital MAST trousers. Military Anti-Shock Trousers are so easily used and so effective that they should be applied before intravenous therapy is attempted. In fact, Emergency Medical Technicians who do not have the ability to administer intravenous fluids are able to apply MAST pants for the treatment of shock.

Indications for the use of MAST pants have been: 1) hypovolemic shock from blunt or penetrating injuries; 2) ruptured ectopic pregnancy; 3) post partum hemorrhage; 4) ruptured aortic aneurysm and 5) any emergency associated with volume depletion resulting in shock. Initially there was some hesitancy about using MAST pants for injuries above the diaphragm, but reports now indicate successful results with both chest and head injuries when the systolic blood pressure is below 80 mm Hg.⁷ A recent series of patients in cardiogenic shock have also been treated in the prehospital phase with MAST pants with some successful results.⁸ *One of the most important aspects in using MAST pants is continuous application until fluid replacement has been completed; otherwise, there may be a precipitous drop in blood pressure when fluid returns*

rapidly to the lower part of the body. It is suggested that there be a gradual deflation with constant monitoring of blood pressure. Abdominal compression should be released first and then the lower extremities compression. If examination of the abdomen needs to be carried out prior to definitive therapy and removal of the trousers, the abdominal component can be deflated and removed while the legs of the device remain inflated. The MAST pants continue to apply counter pressure and maintain autotransfusion from the lower extremities. Application of MAST pants has in most instances produced an increased blood pressure and after administration of fluids the pressure continues to rise toward a normal level. It was pointed out by Dr Norman McSwain⁸ that no patient in his series who survived and had MAST pants applied at the scene developed adult respiratory distress syndrome or renal failure. In addition to supplying blood for the vital circulation of the heart, lungs and brain, the external compression applied has a tamponading effect on intra-abdominal bleeding. This has also proven to be helpful during the transfer of patients with leaking abdominal aneurysms and in pelvic fractures.

TECHNIQUE FOR APPLICATION AND REMOVAL

Application of MAST pants may be carried out after determining blood pressure is less than 100 mm Hg and certainly if it is below 80 mm Hg. The trousers are placed beneath the patient and the lower extremities and abdomen are encased in the device by securing the straps. (Figure 1) The foot pump is used to inflate the trousers until either the blood pressure returns to above 100 systolic or until the Velcro straps begin to slip and the pump valve releases. Once the MAST trousers are inflated, they should be left inflated until fluid replacement has been begun and the estimated blood loss replaced. Prehospital personnel are instructed never to deflate the pants in the field.

In the hospital the patient's vital signs are checked, the usual protocol for the handling of a critically injured patient is carried out and deflation is initiated by deflating the abdominal component of the pants first, checking the blood pressure continually. If the blood pressure falls, deflation should be discontinued until fluid therapy has returned the pressure to its previous level. It may take 30 minutes or more for complete removal and if massive internal bleeding is suspected, the MAST trou-

A graduate of Columbia University College of Physicians and Surgeons, Robert J. Wilder, MD, has been certified by the American Board of Surgery and Thoracic Surgery. He is presently Professor of Surgery at the University of Oklahoma Health Sciences Center. He is a member of the American College of Surgeons, the American Association for Thoracic Surgery, the Trauma Committee of the American College of Surgeons and a member of the Board of Trustees of the Oklahoma Chapter of the American College of Emergency Physicians.

Marcus R. Barber is a registered nurse in Emergency Medical Services. He is now the Director of Emergency Medical Services of the Oklahoma State Department of Health and received his Associate Degree in the Science of Nursing from the Carl Sandburg College, Galesburg, Illinois.



1. A. Military Anti-Shock Trousers with tubing, foot pump and two-way valves ready for patient to be placed in position.



B. Military Anti-Shock Trousers inflated resulting in an autotransfusion of 750- to-2500 cc of blood into the vital circulation of the patient's heart, lungs and brain.

sers should not be removed until the patient is in the operating room where emergency laparotomy can be carried out quickly. In a rare instance, emergency room personnel not familiar with Military Anti-Shock Trousers have cut the MAST pants. Prehospital personnel are understandably concerned about the destruction of their equipment, as well as the danger to the patient associated with rapid removal. All emergency personnel should become familiar with this latest piece of equipment.

The AmCare Ambulance Service of Oklahoma City has been using MAST pants for the last six months and has applied them in the

field in over 100 patients with hypotension. There has been an increase in blood pressure in almost every instance with no reported problems or complications. One patient brought to University Hospital and Clinics by the AmCare Ambulance Service had suffered a severely crushed pelvis and massive intra-abdominal bleeding. Exploration in the operating room revealed a transection of the terminal aorta. This patient survived his transportation to the hospital and had a blood pressure maintained in the 90's with the application of the MAST pants. The blood pressure remained obtainable during the entire period prior to surgery with the MAST pants left in place. On the operating table, the MAST pants were removed after administering 10-to-12 units of blood and only after removal of the pants was it difficult to maintain a blood pressure until the transected aorta was secured.

In summary, MAST pants have proved to be an important adjunct for support of the blood pressure and prevention of inadequate perfusion of organs and tissues. All emergency personnel must become familiar with the Military Anti-Shock Trouser and especially with the method of removal. □

ADDENDUM

Since submission of this manuscript, AmCare has supported numerous additional hypotensive patients during pre-hospital care with positive results.

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Department of Surgery, University of Oklahoma Health Sciences Center, P.O. Box 26901, Oklahoma City, Oklahoma 73125.

Nominations for the All-American Medical Hall of Fame

A roll of physicians is now being assembled for the All-American Medical Hall of Fame under the sponsorship of the St Louis Medical Society. The Heritage Committee of the Oklahoma State Medical Association accepted the challenge to nominate the most esteemed physicians who have practiced in Oklahoma. We were asked to make three selections and one alternate in the event that a nominee was also chosen by the selectors of another medical society.

Our Heritage Committee agreed to nominate Benjamin F. Fortner, LeRoy Long, and Lewis J. Moorman, with W. Albert Cook as the alternate. Mr Hollister S. Smith, Director Emeritus of the St Louis Medical Society, reported that our first three nominees would be listed, but he then requested that we submit their portraits and reports of their contributions. The following biographies were considered at the recent meeting of the OSMA Heritage Committee and are offered for the interest of the members of the Association. R. Palmer Howard, MD, Chairman, OSMA Heritage Committee.

Benjamin F. Fortner, MD (1847-1917)

The leadership of Dr B. F. Fortner in founding the Indian Territory Medical Association in 1881 and in the organization of the State Medical Association in 1906 is apparent from the historical articles published in *The Journal of the Oklahoma State Medical Association*.¹



Benjamin F. Fortner, MD
1847-1917

Fortner was the president of the Indian Territory Medical Association in 1881-82 and 1889-91, and the first president of the Oklahoma State Medical Association, 1906-07. When he then moved to Springfield, Missouri, he was elected the first honorary member of the Oklahoma State Medical Association.

Benjamin F. Fortner was born near Dallas,

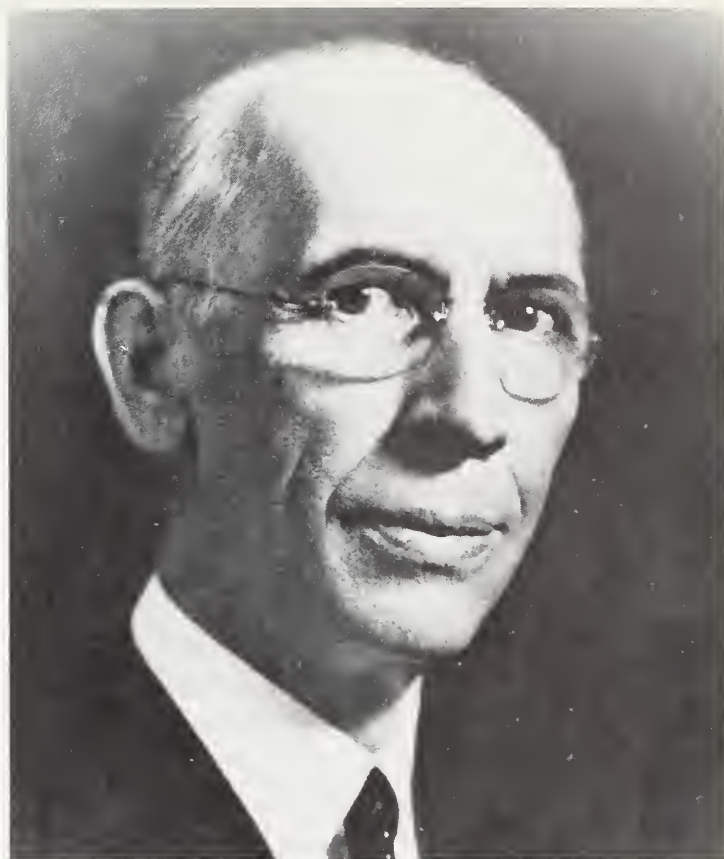
Texas, on August 15, 1847. After service as a youth in the Confederate Army, he was graduated in 1872 from the medical department of the University of Nashville, which was later amalgamated with the University of Tennessee. He began medical practice in western Arkansas. Dr Fortner first settled in Claremore, Indian Territory, with his Cherokee wife in 1879. He resided in Vinita from 1884 until his death on September 23, 1917, except for the years 1907-11, when he was in Springfield, Missouri.

Fortner was the main organizer and guiding spirit of the Indian Territory Medical Association. In addition to serving three terms as the president, he was a member of the Judicial Council from 1891 until 1906. He played a leading role in developing the affiliation of the Indian Territory Medical Association with the American Medical Association from 1896, and constantly upheld the principles of the Code of Ethics. He was also a leader in efforts to improve medical legislation in the five Indian Nations and in the subsequent united political entity of the Indian Territory. The public health of Vinita and of the whole area of Indian Territory was his deep concern. His medical practice in all fields was well renowned, but Dr Fortner was especially prominent as a surgeon. He influenced leading surgeons from the neighboring states to present and discuss papers at the Indian Territory Medical Association meetings. Several of Fortner's contributions were also published in the regional medical journals.

Through the efforts of Benjamin F. Fortner and those of the men he inspired, all aspects of medicine advanced and the public health improved. He is honored as a highly-respected physician and surgeon, the father of organized medicine in Oklahoma, and an inspiring leader of men.²

LeRoy Long, MD (1869-1940)

Dr LeRoy Long attained prominence in organized medicine as secretary of the Indian Territory Medical Association in 1897-1900, and as its president in 1900-01. He was chairman of the ITMA committee appointed to arrange the amalgamation with the Oklahoma Territorial Medical Association. At the first meeting of the united Oklahoma State Medical Association in 1906, Long was elected Councilor-at-Large and continued to play a prominent role in the Association. He served as president in 1934-35.³



LeRoy Long, MD
1869-1940

LeRoy Long was born January 1, 1869, in Lincoln County, North Carolina. After reading anatomy with a local physician, he attended the Louisville Medical College, from which he was graduated in 1893. He served as lecturer and clinical assistant in this college until a bout of pneumonia, with a prolonged convalescence, prompted him to accept a *locum tenens* in Atoka, Indian Territory, in 1895. He then practiced in Caddo, and became a citizen of the Choctaw Nation through marriage. Doctor Long frequently visited the leading American surgeons, and gradually perfected himself in this field. In 1904, he moved to McAlester to confine his practice to surgery, and his reputation soon spread widely. He was elected a fellow of the American College of Surgeons in 1913 and later became a governor of the college. He was also a fellow of the International College of Surgeons and a member of many other professional organizations.

In 1915 he accepted the position of dean and professor of surgery at the University of Oklahoma. He led the school of medicine with talent and energy. During his tenure, the first university hospital entirely devoted to patient care and education was built in 1919, the Children's Memorial Hospital in 1928, and the pre-clinical subjects were moved from Norman

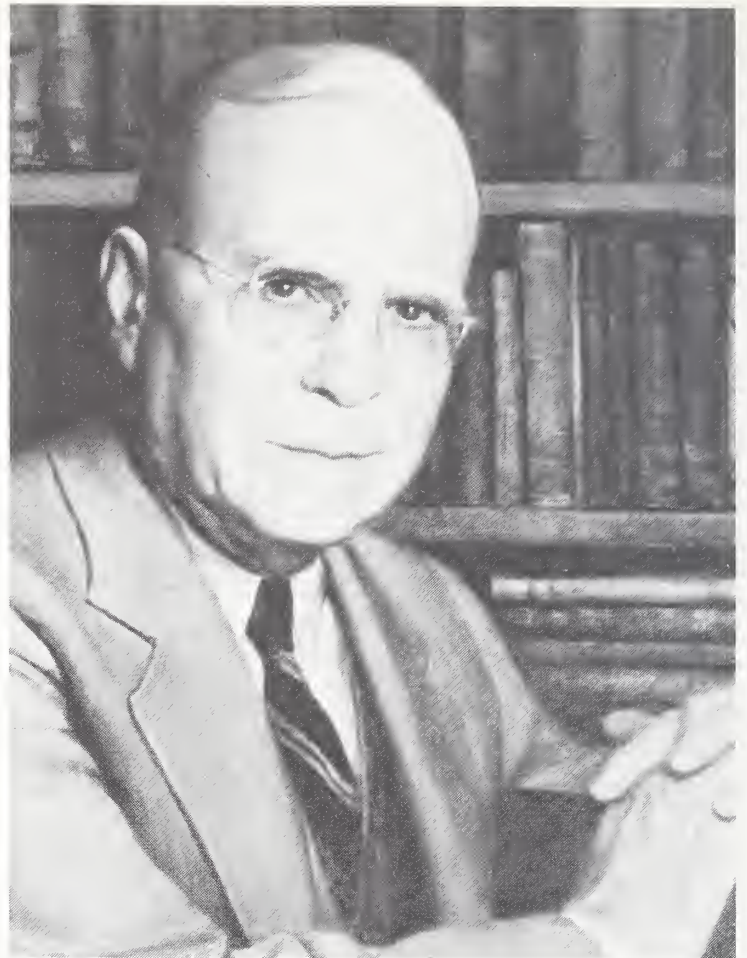
to a new college of medicine building in Oklahoma City in 1928. Dean Long had undertaken to uphold the ethical considerations of the Council on Medical Education of the AMA. When he was overruled by the governor of Oklahoma in a matter of professional ethics, Long resigned from the University in 1931. He continued to practice surgery until his death in 1940.

LeRoy Long's accomplishments and personal ideals were recognized by his contemporaries and are remembered by his successors in medical practice and education. His position of leadership is best exemplified by the bronze plaque and his likeness, which is now outside the dean's office in the College of Medicine. On the plaque are the following words: "LeRoy Long / 1869-1940 / Scholar and Surgeon / Dean and Professor of Surgery / 1915-1931 / Kind and Understanding Doctor / Builder of the Medical School / Courageous Leader of Ethical and Scientific Medicine / Affectionately Erected by the Oklahoma State Medical Association."^{2, 4, 5}

Lewis J. Moorman, MD (1875-1954)

Dr Lewis J. Moorman was born near Leitchfield, Kentucky, in February, 1875. He came to Oklahoma Territory after being graduated from the University of Louisville Medical School in 1901. Although engaged in country practice in Jet and Nash, he soon joined the Oklahoma Territorial Medical Association. At the organization of the OSMA in May, 1906, he was elected a delegate from Grant County. In 1907 he moved to Oklahoma City, where he gradually concentrated his practice on the treatment of tuberculosis, and he participated actively in medical education. He served as president of the OSMA from 1919-20, and as secretary-treasurer from 1941-54. His contribution to the OSMA is note-worthy by his distinguished service as Editor-in-Chief of *The Journal* from 1942 until his death in August, 1954.⁶

In addition to founding and managing the Farm Sanatorium in Oklahoma City, Dr Moorman became nationally known as a specialist in tuberculosis and chest diseases. He was chairman of the AMA physicians who studied health conditions among the Navajo-Hopi Indians.⁷ He was also president of the American Trudeau Society, the National



Lewis J. Moorman, MD
1875-1954

Tuberculosis Association, and the Southern Medical Association.

Dr Moorman was a member of the faculty of the Epworth College of Medicine in Oklahoma City before he was appointed to the medical school faculty of the University of Oklahoma in April, 1910. In 1925 he was made professor of clinical medicine. He served as dean from 1931-35.⁸

While remaining in active clinical practice, he continued his interest in medical education at all levels, including a course in the history of medicine. Dr Moorman joined with other leaders in the organization of the Oklahoma Medical Research Foundation.

Lewis Moorman's talent as a writer won him an enduring reputation. In addition to many professional articles he wrote several books, including *Tuberculosis and Genius*. Best known to persons with an historical interest is the autobiographical treatise, *Pioneer Doctor*. Interest in medical history was further emphasized by his leadership in founding an Oklahoma City unit of the American Association of the History of Medicine. While editor of

The Journal he organized the collection of archives and memorabilia from Oklahoma practitioners and health organizations. This collection has been assembled at the University.

In *The Journal* issue dedicated to L. J. Moorman, the OSMA president, B. R. Hinson, summarized: "His high ideals and selfless work form a solid foundation for a lasting tribute, and inspiring statement of the highest purpose of the practice of medicine."⁹

The issue included also a selection of outstanding editorials and short articles written by Dr Moorman. The tributes by the Director of the University of Oklahoma Press, Savoie Lotinville, a senior medical student who had been inspired by him, Lawrence McHenry, and his long time friend and fellow practitioner, Lea A. Riely, reveal the appreciation of his contem-

poraries. Many others in Oklahoma remember his contributions with admiration and gratitude.¹⁰ □

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News From The Oklahoma State Department of Health

Emergency Medical Services in Oklahoma are on the move. Within the past two years legislation has been passed that increases the state's role in EMS. Legislation is now being passed that will enable the state to assist those communities who are doing realistic EMS planning for their area. Standardized curricula have been established and efforts are being made to assist in the establishment of training programs and in acquiring AMA certification where necessary. With the assistance of the Oklahoma State University Extension Service, community development planning is being done on a county by county basis. The utilization of this information will assist counties in

establishing county systems under Section 10, Article 9C of the State Constitution. This allows the passage of a three mill levy for an Emergency Medical Services District. This, in conjunction with the previously mentioned state legislation, could lead to an independence from federal support. Oklahoma Highway Safety Office is continuing its community assistance programs for ambulance placement.

Regional development for the northern half of the State is beginning now and applications for DHEW funding will be submitted in April of 1980. Funded regions in the southeast and southwest are progressing toward advanced life support.

Statewide development of physician education is being undertaken as a joint effort of ACEP and the ACS committee on trauma with support from OSDH/DEMS and direction from the Technical Medical Direction Committee.

These advancements have shown Oklahoma to be one of the most progressive EMS programs in the nation. *Marcus R. Barber, RN, REMT, Director, Emergency Medical Services Division, Oklahoma State Department of Health* ☐

COMMUNICABLE DISEASES IN OKLAHOMA FOR APRIL, 1979

DISEASE	APRIL 1979	APRIL 1978	MARCH 1979	Total To Date	
				1979	1978
Amebiasis	—	5	2	5	12
Brucellosis	—	—	—	—	1
Chickenpox	—	—	—	—	—
Encephalitis, Infectious	2	4	1	4	5
Gonorrhea (Use Form ODH-228)	943	946	962	3999	4016
Hepatitis, A, B, Unspecified	40	99	63	142	253
Leptospirosis	—	—	—	—	—
Malaria	—	—	—	—	—
Meningococcal Infections	—	5	10	16	13
Meningitis, Aseptic	2	7	2	6	17
Mumps	—	—	—	—	—
Rabies in Animals	23	32	33	84	71
Rheumatic Fever	—	—	—	—	—
Rocky Mountain Spotted Fever	—	—	—	—	—
Rubella	2	6	12	18	9
Rubella, Congenital Syndrome	—	—	—	—	—
Rubeola	17	1	2	20	8
Salmonellosis	17	18	18	61	48
Shigellosis	5	55	24	57	80
Syphilis, Infectious (Use Form ODH-228)	5	9	14	29	39
Tetanus	—	1	—	—	1
Tuberculosis, New Active	23	28	33	127	115
Tularemia	—	—	—	—	—
Typhoid Fever	—	—	—	—	1
Whooping Cough	—	1	2	2	6

OSMA Delegates Approve Insurance Company

The OSMA House of Delegates has granted its formal approval to a plan which would authorize formation of a captive professional liability insurance company. The action came during the recent OSMA Annual Meeting which was held in Tulsa.

The action taken by the OSMA House does not mandate that an internal insurance company be set up, but rather grants authorization to the Board of Trustees to do so should the professional liability market worsen. For the past few years OSMA members have paid the lowest rates in the nation for their professional liability coverage, but the rates paid by state doctors have risen appreciably. The action of the House is seen as an alternative method of providing coverage should the commercial market disappear or should rates continue to escalate.

According to the resolution, the company would be capitalized by participating physicians who would pay a fee not to exceed \$2,000 which would be collected over a three-year period. Funds collected in this manner would be used exclusively to pay the costs associated with forming and funding the insurance company. Additionally, the Board of Trustees is authorized to pledge any or all of the assets of the association and to secure any loans necessary to set up the company. Should it become necessary to form the captive insurance company, the Trustees will "enter into a contract with a competent, experienced company to organize, form and manage" the insurance program.

Delegates also approved two resolutions dealing with health cost containment measures. The first, submitted by the Tulsa County Medical Society, calls for all general hospitals in the state to provide a copy of each patient's bill to the attending physicians for a period of three months. After that, hospitals would be requested to provide random sampling of billings for ten percent of each physician's admissions. The other measure, a late resolution submitted by the Board of Trustees, endorses "reasonable cost effective measures such as the Voluntary Effort and the Oklahoma Utilization Review System but opposes federal cost containment legislation which has been introduced before the Congress." This resolution points out that cost containment measures



Elected President-elect of the OSMA is Floyd F. Miller, MD, Tulsa. Dr Miller is a former president of the Tulsa County Medical Society and the Oklahoma Society of Internal Medicine.

which have been introduced into Congress would limit hospital cost increases in the state and "seriously jeopardize the physician's ability to care for his patients." It also pointed out that both Congress and the Administration have established many new standards and requirements for hospitals which have greatly increased the cost of operation, and that neither hospitals nor the medical profession has any control over these factors. The resolution pointed out that burdensome federal regulations account for as much as 30 percent of the operating costs of some hospitals.

In other action OSMA Delegates also approved a resolution requesting that all OSMA members contribute a minimum of \$200 each to the Oklahoma Medical Political Action Committee in order to support legislative activities. The resolution pointed out the steady growth of bills dealing with medicine and the need to support OSMA's legislative program.

Reaffirmed OSMA's opposition to the use of medications for the treatment or diagnosis of diseases of the eye by optometrists.

Opposed non-medically supervised speech and hearing clinics.

Approved in principle the testimony of Claude H. Williams, MD, before the Senate Finance Committee.

Turned down the Report of the Ad Hoc Committee on the Endorsement of Commercial Ventures. This report and a similar resolution would have established a separate OSMA council which would have had responsibility for reviewing products and services to determine if they should receive the endorsement or approval of OSMA. It was the feeling of the reference committee which reviewed this item that these matters could be handled better by a subcommittee of the Council on Members Services and that a separate council should not be established.

Approved a Supplemental Report of the Board of Trustees which increases the honorarium received by the president of the Association from \$1,000 to \$5,000. This honorarium is used to reimburse the president for "non-reimbursable expenses" he incurs carrying out his duties.



The 1979 recipient of the OSMA Outstanding Layman Award is Mr Roy C. Lytle, OSMA general counsel. A graduate of the Harvard Law School, Mr Lytle has served as OSMA legal advisor for over 25 years.

Turned down a resolution which would have made membership in the American Medical Association voluntary. Similar resolutions have been turned down by OSMA delegates five out of the last six years.

Approved the Special Report of the Council on Public and Mental Health which endorsed the activities of the Oklahoma Health Education Advisory Council and approved membership in this organization of OSMA.

Directed the Council on Public and Mental Health to conduct a study during 1979-80 of the problems of mobile drug abusers and to file a report with the OSMA Board of Trustees before March 1, 1980.

Turned down resolutions which would have granted full membership privileges to medical students. It was the feeling of the reference committee, the Council on Planning and Development and the House of Delegates that the privileges of voting and holding office should be reserved for persons holding the degree of Doctor of Medicine and not extended to medical students who pay little or no dues. The Delegates also, however, stressed their interest in increasing medical student membership, and encouraged that efforts be made to increase the number of medical student members.

Presented the A. H. Robins Award for Community Service to Hayden H. Donahue, MD.

Presented the OSMA Outstanding Layman Award to Mr Roy Lytle, legal counsel for OSMA.

Presented the OSMA Medical Journalism Award to Mr Jacques DeLier, president and general manager of KWTW.

Received an address from Tom E. Nesbitt, MD, president of the American Medical Association. Dr Nesbitt commented on AMA membership solicitation programs and activities of the Federal Election Commission.

Elected the following officers: Floyd F. Miller, MD, Tulsa, president-elect; James B. Pitts, Jr., MD, Oklahoma City, vice-president; Armond H. Start, MD, Oklahoma City, secretary-treasurer; Ed L. Calhoon, MD, Beaver, delegate to the AMA; and James B. Eskridge, III, MD, Oklahoma City, alternate delegate to the AMA.

Elected the following trustees and alternate trustees . . . Elvin M. Amen, MD, Bartlesville, trustee, and John E. Highland, MD, Miami, alternate trustee from District I; Ellis Oster, MD, Ponca City, trustee, and Fred Harper, MD, Pawhuska, alternate trustee from



Shown here receiving the OSMA Medical Journalism Award is Mr Jacques DeLier, president and general manager of Oklahoma City television station, KWTW. Shown presenting the award is OSMA Past-President Marvin K. Margo, MD.

District II; Ray V. McIntyre, MD, Kingfisher, trustee, and Joe B. Jarman, Jr., MD, Enid, alternate trustee from District III; M. K. Braly, MD, Woodward, trustee, and Ed L. Calhoon, MD, Beaver, alternate trustee from District IV; F. W. Hollingsworth, MD, El Reno, trustee, and William M. Leebron, MD, Elk City, alter-



The 1979 recipient of the A. H. Robins Award for Outstanding Community Service is Hayden H. Donahue, MD.

nate trustee from District V; Robert K. Jackson, MD, McAlester, alternate trustee from District X.

For additional information about these and other items, please see the Proceedings section of this *Journal*. □

AMA Urges Increased Federal Funds for 13 Major Health Programs

The American Medical Association has urged Congress to increase funding for 13 programs that "hold the greatest promise for improving our nation's health."

In letters to the chairmen of key Congressional committees, the AMA said it was limiting its recommendations for increased appropriations in fiscal year 1980 because of inflation in the general economy and the need to control deficit spending.

"We are working with Congress to develop legislation that will focus on positive health strategies as well as health program cost reductions," the AMA said.

"The challenge is to act with fiscal constraint and responsibility while making sure our federal tax dollars are spent in the best possible way."

The AMA recommended that funding be increased beyond President Carter's budget request by \$613.4 million, with the largest increase going to the National Institutes of Health (\$227.6 million) and health professions education (\$143.4 million). More money also was recommended for maternal and child health, family planning, emergency medical services, venereal disease control, immunization, childhood lead-based paint poisoning prevention, health education, mental health, alcoholism, aging and the Food and Drug Administration.

The letter described AMA efforts to restrain costs through the National Commission on the Cost of Medical Care and the Voluntary Effort. It also called on Congress and the Administration to continue implementation of anti-fraud and abuse legislation and Medicare-Medicaid quality control and management program and to support the Voluntary Effort and PSRO program.

The AMA also recommended that Congress and the Administration support actions to reduce the high costs caused by excessive federal regulation and support "sunset" plans that would provide for periodic review of federal spending programs. □

Legislative Committee Active in 1979

The number of legislative proposals affecting medicine increases each year. The OSMA Legislative Committee is one of the Association's most active and has responsibility for monitoring legislative activity and representing OSMA and its members on all such legislation. Below is a summary of bills introduced during the last session.

MEDICAL-LEGAL LEGISLATION

HB 1398 — Rep. Steward — Would expand allowable damages in malpractice suits and essentially void the three-year statute of limitations. OSMA position: Actively oppose. Status: Dormant in Senate Committee.

(Note: Sen. Keating became the author of this bill not as a proponent but rather to have control of its destiny. It is obvious he is deserving of great appreciation from our membership.)

HB 1272—Rep. Don Davis—Permitting testimony to authenticate certain medical bills during trials of civil cases involving injury,

disease or disability. OSMA position: Support. Status: Signed into law April 5, 1979.

HB 1284— Rep. Don Davis — Allowing the use of deposition by expert witnesses. OSMA position: Oppose. Status: Signed into law April 9, 1979.

HB 1245 — Rep. McCaleb — Providing for recovery from frivolous lawsuits. OSMA position: Support. Status: Dormant in House Committee.

SB 216 — Sen. Wolfe — Providing liberal qualifications of expert medical witnesses. OSMA position: Oppose. Status: Dormant in Senate Committee.

SB 127 — Sen. Ed Berrong — Minor Amendment to the Good Samaritan Act to include *restoration of breathing*. OSMA position: Support. Status: Signed by Governor.

SB 164 — Sen. Wolfe — Requiring, upon request from the patient, all hospitals and physicians to supply a copy of the information contained in their medical records, excluding psychiatry records, at a price not to exceed 10c per page. OSMA position: Oppose. Status: Signed into law April 17, 1979. Effective October 1, 1979.

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SB 270 — Sen. Terrell — Modifies requirement for attending physician to sign death certificates. OSMA position: Support. Status: Signed into law April 25, 1979.

PUBLIC HEALTH

SB 143 — Sen. Martin and Rep. Atkins — Requiring certain immunizations for children being admitted to daycare centers. OSMA position: Support. Status: Signed into law May 3, 1979. Effective immediately.

SB 294 — Sen. Cummins — Prohibiting disposal of any radioactive material. OSMA position: Oppose. Status: Dormant in House Committee.

HB 1229 — Rep. Craighead — Adding eleven members to health facilities advisory council. OSMA position: Passively support. Status: Dormant in Senate Committee.

PODIATRY

SB 158 — Sen. Watson — Requiring administrators of licensed hospitals to consider applications to the medical staff by licensed podiatrists. OSMA position: Oppose. Status: Signed into law May 3, 1979.

EMERGENCY MEDICAL SERVICES

SB 257 — Sen. Randle and Rep. Cleveland — Establishing a statewide emergency telephone number. OSMA position: Support. Status: Signed into law May 15, 1979.

HB 1230 — Rep. Henry — Establishing a revolving fund for emergency medical services. OSMA position: Support. Status: In general conference committee on appropriations.

PHARMACY AND DRUGS

HB 1120 — Rep. Twidwell — Would require physicians to obtain pharmacy license if engaged in the sale of pharmacy items. OSMA position: Oppose. Status: Dormant in House Committee.

HB 1200 — Rep. Harbin — Setting certain restrictions on the substitution of drugs and medicines. OSMA position: Support. Status: Dormant in Senate Committee.

CHIROPRACTIC

HB 1108 — Rep. Riemer — Setting educational standards for an accredited school or college of chiropractic. OSMA position: Oppose. Status: Signed into law April 9, 1979.

HB 1302 — Rep. Denman — Authorizing creation of a non-profit chiropractor service corporation. OSMA position: Monitor. Status: Signed into law April 17, 1979.

DEATH WITH DIGNITY

SB 83 — Sen. Schuelein and HB 1128 — Rep. Craighead — Provides for termination of life sustaining procedures when living will is present. OSMA position: Oppose. Status: Dormant in House and Senate Committee.

OPTOMETRY

SB 285 — Sen. Randle and Rep. Morgan — Would allow optometrists to use topical ocular drugs. OSMA position: Actively oppose. Status: Dormant in House Committee.

(Note: Rep. Dan Draper, Speaker of the House, was very helpful by double assigning this bill in the House and thus allowing for a fair hearing. Rep. Hannah Atkins, Chairperson of Public and Mental Health Committee, was very fair in permitting adequate testimony before the committee voted the bill down 4-2.)

NURSE MIDWIFERY

SB 171 — Sen. Wolfe — Would define and establish the practice of midwifery in Oklahoma. OSMA position: Oppose. Status: Dormant in Senate Committee.

(Note: OSMA and the Oklahoma State Nursing Association are working together to develop legislation concerning nurse practitioners. SB 171 would have confused the issue, therefore, OSMA and OSNA opposed it.)

MEDICAL SCHOOL

HB 1333 — Rep. McIntyre and SB 232 — Sen. York — Would allow certain in lieu of requirements for foreign medical school students for licensure to practice medicine and would prohibit state hospitals from requiring additional qualifications. OSMA position: Oppose. Status: Dormant in Senate and House Committee.

PHYSICIAN'S ASSISTANTS

Senate Resolution 52 — Sen. Boatner, Durant, was adopted by the Senate on May 28, 1979. The Resolution in essence says: *Whereas*, it would be advantageous to the smaller communities and rural areas of this state to have *unsupervised* physician's assistants to render

basic medical care and refer serious cases to physicians and . . .

NOW, THEREFORE, be it resolved by the Senate of the 1st Session of the 37th Oklahoma Legislature:

SECTION I. The State Board of Medical Examiners is hereby requested to establish a program whereby physicians' assistants may conduct limited medical services in rural areas and communities which do not have physicians.

(Note: This is not law but rather a request by the legislators.)

OTHER LEGISLATION

HB 1138 — Rep. Don Davis — Physician Manpower Training Commission appropriation. OSMA position: Support. Status: Full appropriation approved.

OSMA has additional information on all of the preceding legislation including voting records of your senator and representatives. If you desire any specific information, please contact: Lyle Kelsey, Associate Director, Oklahoma State Medical Association, 601 NW Expressway, Oklahoma City, Oklahoma 73118, (405) 843-9571. ☐

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Being congratulated as the newest OSMA 50-year member is E. H. Shuller, MD, McAlester. OSMA President William M. Leebron, MD, presented Dr Shuller with a 50-year pin during ceremonies in McAlester in May.

Exhibitors Support Annual Meeting

The recent OSMA Annual Meeting was a success largely because of the many commercial exhibitors and contributors. Listed below are the organizations which supported the OSMA Annual Meeting.

EXHIBITORS:

Abbott Laboratories
US Air Force
American Electromedics
Armour Pharmaceutical
US Army
Automated Business Systems (2)
Ayerst Laboratories
Bank of Oklahoma
Beecham Laboratories
Blue Cross, Blue Shield
Boehringer-Ingelheim
Bolen Imports (2)
Bristol Laboratories
Ciba Pharmaceuticals
Clay Adams Co.
Comatic Laboratories
Cooper Laboratories
Cope Enterprises
Documation
Dow Chemical Company
Electronic Dictation Systems
Encyclopaedia Britannica
First National Bank of Tulsa

Flint Laboratories
C. L. Frates & Co.
Geigy Pharmaceuticals
Hoechst-Roussel Pharmaceuticals
Intermedics, Inc.
Ives Laboratories
Johnson & Johnson Dermatological Div.
Kremers-Urban Co.
Lederle Laboratories
Mallinckrodt, Inc.
Mead-Johnson Nutritional Div.
Mead-Johnson Pharmaceutical Div.
Medco Products Co.
Medical Data Systems, Inc.
Merck, Sharp & Dohme
Meyer Laboratories
Miller Howe X-Ray
Mission Pharmacal Co.
Physician Planning Service
Ortho Pharmaceuticals
Dub Richardson Ford
Roberts, Fitzgerald & Cowan
Roerig
Searle Laboratories
Siggi Grimm Motors
Smith, Kline & French
Southwest Bell Telephone Co.
Stonewing Environmental Designs
Stuart Pharmaceuticals
Syntex
Tab Products
Vance Products
Wallace Laboratories
Warren-Teed Labs.
Weight Watchers

CONCESSIONS:

Cory Coffee Company
Seven-Up, Dr. Pepper
Sweet N' Legal USA, Inc.

CONTRIBUTORS:

Upjohn
E. R. Squibb
Schering
Ely Lily
A. H. Robins
Wyeth Laboratories
Merck, Sharp & Dohme
Roche Laboratories
Hoffman LaRoche

SUPPORTERS:

Grantree Furniture Rental
Plant Parade



GERALD BEDNAR, MD
1911-1979

DEATHS

HOWELL A. SCOTT, MD
1885-1979

A pioneer Muskogee physician, Howell A. Scott, MD, 94, died May 22, 1979. Born in Texanna, Indian Territory, Dr Scott was graduated from the University of Nashville Medical Department in Tennessee in 1911. He retired from his medical practice in 1970, ending a 58-year career in medicine in Muskogee. Dr Scott had worked as a volunteer with Bacone College in many different capacities, beginning as a consulting campus physician. In 1955, he received the Distinguished Baconian Award during the college's 75th Founding Day Celebration.

Dr Scott was presented an Honorary-Life Membership in the OSMA in 1962.

Oklahoma City dermatologist, Gerald Bednar, MD, 68, died May 2. Born in Alex, Oklahoma, Dr Bednar was graduated from the University of Oklahoma College of Medicine in 1940. Following service with the US Army Medical Corps and Air Corps, he established his practice in Oklahoma City. Last year, the OSMA presented Dr Bednar with a Life Membership.

WALTER M. COX, MD
1924-1979

Oklahoma City internist, Walter M. Cox, MD, died June 4, 1979. Doctor Cox who was born in Lawton, received his medical degree from the University of Oklahoma College of Medicine in 1953. Following his residency training, he established his practice in Oklahoma City. □

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Board of Trustees Elects Officers

Elvin M. Amen, MD, a Bartlesville family physician has been elected chairman of the Oklahoma State Medical Association's Board of Trustees. Doctor Amen will serve a one-year term and is eligible to be reelected for two additional terms. Doctor Amen served as vice-chairman of the Board of Trustees during 1978-79.

Elected vice-chairman of the Board is James B. Eskridge, III, MD. Doctor Eskridge is an Oklahoma City obstetrician and gynecologist and will serve a one-year term as vice-chairman. For the past three years Doctor Eskridge has served as chairman of the Board of Trustees.

Elections were held during OSMA's annual meeting in May. ☐

Survival Rate Improves For Heart Transplants

Heart transplants are given a new lease on life in a status report in the May 11 *Journal of the American Medical Association*.

Poor survival rates in the surge of transplants in 1968 and 1969 caused most surgeons across the nation to abandon the procedure.

Only in a few medical centers, notably Stanford University School of Medicine in California, did transplants continue.

Heart transplants are now successful three-fourths of the time and could become a life-extending treatment for some 75,000 Americans each year, says John Speer Schroeder, MD, Stanford cardiologist.

"The survival rate of 70 percent for cardiac transplant recipients in recent years and excellent functional rehabilitation indicate that the procedure is clinically effective and should be considered in selected patients with end-stage cardiac disease," Dr Schroeder declares.

There are major problems to overcome in providing new hearts to 75,000 persons each year who are about to die from heart disease. A major obstacle is finding enough donor hearts. Many states have sought to ease this problem by adopting laws permitting the doctor to declare an individual is dead when the brain ceases to function, even though the heart and lungs may still be working assisted by machines. The AMA has drafted a model law to assist other states in preparing similar legislation.

Other problems include acceptance by insurance companies of the procedure as accepted treatment. Cost for the first year of the proce-

cedure at Stanford is \$50,000, and only some 50 percent of cost currently is covered by insurance companies.

While much has been learned in overcoming the body's natural tendency to reject foreign organs, thus making possible the improved survival rate, improved methods of preventing rejection still are sought, Dr Schroeder says.

The candidate for a heart transplant should be no more than 50 years of age, because of poor survival rates with older patients, he says. And all patients should be dying of heart disease that no longer can be controlled by other medical therapies.

Donor supply remains critical. Some one-third of recipients awaiting transplant at Stanford die before a suitable donor heart becomes available.

Recently, hearts have been preserved at low temperatures and transplanted successfully after two or three hours of storage. ☐

Doctor Johnson Reappointed to Editorial Board

Mark R. Johnson, MD, has been reappointed Editor-in-Chief of *The Journal of the Oklahoma State Medical Association*. The appointment was made by the OSMA Board of Trustees during the recent annual meeting in Tulsa.

Doctor Johnson was first appointed to the Editorial Board in 1968 and since then has been nationally known for his editorials which are often critical of the federal government's intervention into the practice of medicine. Last year the *OSMA Journal* won first prize in the Sandoz Medical Journal Contest, and Dr Johnson's editorials were singled out as one reason. ☐

SPECIAL NOTICE

Over the years OSMA's list of 50-year members has become badly outdated and incomplete. Since this is a very special group of physicians worthy of special recognition, OSMA would like to update its list and is asking for the cooperation of all 50-year members. If you have received this special recognition, would you please notify OSMA by writing Oklahoma State Medical Association, 601 Northwest Expressway, Oklahoma City, Oklahoma 73118. Your cooperation is greatly appreciated. ☐

OKLAHOMA STATE MEDICAL ASSOCIATION

The Oklahoma State Medical Association sponsors tours to achieve the benefits of group travel for its members. Responsibility for the expenses of promoting and conducting the tours and seminars are fully borne by the company and its sub-contractors.

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Proceedings of the 73rd Annual Session of the House of Delegates of the Oklahoma State Medical Association

OPENING SESSION

I. CALL TO ORDER:

The House of Delegates convened its 73rd Annual Session in the Williams Plaza Hotel, Tulsa, Oklahoma, on May 3, 1979. The Speaker, S. N. Stone, MD, Oklahoma City, called the meeting to order at 1:05 p.m.

II. INVOCATION:

James B. Eskridge, III, MD, Oklahoma City, delivered the invocation.

III. WELCOME TO TULSA:

Victor Robards, MD, Tulsa, introduced Mayor James Inhofe, who welcomed the Delegates to Tulsa.

IV. INTRODUCTION OF EXHIBITORS:

Doctor Stone recognized representatives from the exhibits who were in attendance, and encouraged the Delegates to visit the exhibit area.

V. REPORT OF THE CREDENTIALS COMMITTEE:

The presence of a quorum was reported by F. W. Hollingsworth, MD, Chairman of the Credentials Committee.

VI. INTRODUCTION OF SPECIAL GUESTS:

Doctor Stone introduced Mrs. Leon Combs, out-going President of the Auxiliary of the Oklahoma State Medical Association. Mrs. Combs thanked the Delegates for their support and encouraged them to encourage their spouses to join the Auxiliary and help that organization become even more supportive of the physicians in the state.

VII. APPOINTMENT OF COMMITTEES OF THE HOUSE:

The following committees were appointed to assist in the conduct of the meeting:

CREDENTIALS COMMITTEE

F. W. Hollingsworth, MD, El Reno, Chairman
Lanny F. Trotter, MD, Stillwater
Roger V. Haglund, MD, Tulsa

TELLERS

Robert G. Perryman, MD, Tulsa
William E. Dalton, MD, Oklahoma City
David D. Rose, MD, Ardmore

SERGEANTS-AT-ARMS

Edward K. Norfleet, MD, Tulsa
Kent Braden, MD, Oklahoma City

REFERENCE COMMITTEE NO. I

(8:30 a.m., Maple Room)

Stanley R. McCampbell, MD, Oklahoma City,
Chairman
James D. Funnell, MD, Oklahoma City
James W. McDoniel, MD, Chickasha
John A. McIntyre, MD, Enid
Michael J. Haugh, MD, Tulsa
John A. Blaschke, MD, Oklahoma City
Robert M. Shepard, Jr., MD, Tulsa

REFERENCE COMMITTEE NO. II

(8:30 a.m., Hickory Room)

Ray V. McIntyre, MD, Kingfisher, Chairman
Kenneth W. Whittington, MD, Bethany
James D. Brashear, MD, Norman
Robert G. Perryman, MD, Tulsa
Larry Long, MD, Oklahoma City
Fred R. Martin, MD, Tulsa
Hall Ketchum, MD, Tulsa

REFERENCE COMMITTEE NO. III

(8:30 a.m., Oak Room)

Frank A. Clingan, MD, Tulsa, Chairman
Thurman Shuller, MD, McAlester
Hillard E. Denyer, MD, Bartlesville
H. Clark Hyde, MD, Oklahoma City
John T. Keown, Jr., MD, Tulsa
William E. Dalton, MD, Oklahoma City
Don Rhinehart, MD, Oklahoma City

VIII. PRESENTATIONS:

Mrs. Leon Combs presented a check in the amount of \$24,508.25 from the AMA-ERF Fund to Dr Tom Lynn, Dean of the Oklahoma University College of Medicine. Another AMA-ERF check for \$784.00 was presented to Dr Edward J. Tomsovic, Dean of the University of Oklahoma Tulsa Medical College. Mrs. Combs introduced Mrs. William Harrison, State Chairman of the AMA-ERF Committee.

Doctor Lynn thanked the Auxiliary for their contributions, and on behalf of the Tulsa Medical College Doctor Tomsovic expressed his appreciation to the Auxiliary for the AMA-ERF Fund.

IX. REMARKS OF THE SPEAKER:

Doctor Stone welcomed the delegates and guests to the 73rd Annual Session of the Oklahoma State Medical Association.

X. REPORT OF THE PRESIDENT:

Doctor Marvin K. Margo presented his report to the Delegates, and it was referred to Reference Committee No. III. (A copy of the report is attached and made a part of these minutes.)

XI. REPORT OF THE CHAIRMAN OF THE BOARD:

J. B. Eskridge, III, MD, referred the Delegates to the report of the Board of Trustees found in their handbooks, which covers actions taken at the three previous meetings of the Board of Trustees. He then presented information reviewing actions taken by the Board at their meeting earlier in the day, which is contained in the Supplemental Report of the Board of Trustees. (Both reports are attached and made a part of these minutes.)

XII. REPORT OF THE SECRETARY-TREASURER:

Armond H. Start, MD, reported that the financial status of the Association is very good, and referred the Delegates to the Report of the Secretary-Treasurer and Audit Committee found in their handbooks. This report was referred to Reference Committee III. (Copies of these reports are attached and made a part of these minutes.)

XIII. BUSINESS TO BE BROUGHT BEFORE THE HOUSE:

Doctor Stone referred the Delegates to their handbooks, which include all information to be

considered by the House and referred to reference committees.

Doctor Ray McIntyre of Kingfisher commented on Resolutions No. 3 and 13, which deal with bylaws changes. They seem to have the purpose of opening membership to students and residents, yet the way they are stated it appears that the citizenship requirement for membership in the Association is put in a status where it can be waived.

After considerable discussion, a motion was made that the Reference Committee considering Resolutions No. 3 and 13 hereby be instructed not to alter the basic citizenship requirements for membership in the state medical association.

XIV. NOMINATIONS FOR ELECTIONS:

Doctor Stone announced the House would recess for ten minutes for all Trustee Districts I, II, III, IV and V to caucus. Doctor Stone then declared the House open for nominations for the position of PRESIDENT-ELECT (one-year term of office).

Floyd F. Miller, MD, Tulsa, was nominated by Victor Robards, MD, representing Tulsa County Medical Society.

Nominations were declared closed.

Nominations were declared open for the position of VICE-PRESIDENT (one-year term of office).

James B. Pitts, Jr., MD, Oklahoma City, was nominated by James D. Funnell, MD, representing Oklahoma County Medical Society.

Nominations were declared closed.

Nominations were declared open for the position of SECRETARY-TREASURER (two-year term of office).

Armond H. Start, MD, Oklahoma City, was nominated by James D. Funnell, MD, representing Oklahoma County Medical Society.

Nominations were declared closed.

Nominations were declared open for the position of DELEGATE TO THE AMA, POSITION I (two-year term of office).

Ed L. Calhoon, MD, Beaver, was nominated by M. K. Braly, MD, Woodward, representing the Alfalfa-Woods County Medical Society.

Nominations were declared closed.

Nominations were declared open for the position of ALTERNATE DELEGATE TO THE AMA, POSITION I (two-year term).

James B. Eskridge, III, MD, Oklahoma City, was nominated by James D. Funnell, MD, representing Oklahoma County Medical Society.

Nominations were declared closed.

Nominations were declared open for TRUSTEE and ALTERNATE TRUSTEE for the following Trustee Districts (three-year term of office):

DISTRICT I

Reporting on the caucus of representatives from District I, the following nominations were made:

Elvin Amen, MD, Bartlesville, was nominated for the position of Trustee.

John E. Highland, MD, Miami, was nominated for the position of Alternate Trustee.

DISTRICT II

Ellis Oster, MD, Ponca City, was nominated for the position of Trustee.

Fred Harper, MD, Pawhuska, was nominated for the position of Alternate Trustee.

DISTRICT III

Ray V. McIntyre, MD, Kingfisher, was nominated for the position of Trustee.

Joe B. Jarman, Jr., MD, Enid, was nominated for the position of Alternate Trustee.

DISTRICT IV

M. K. Braly, MD, Woodward, was nominated for the position of Trustee.

Ed Calhoon, MD, Beaver, was nominated for the position of Alternate Trustee.

DISTRICT V

F. W. Hollingsworth, MD, El Reno, was nominated for the position of Trustee.

William M. Leebron, MD, Elk City, was nominated for the position of Alternate Trustee.

DISTRICT X

Robert K. Jackson, MD, McAlester, was nominated for the position of Alternate Trustee to fill the unexpired term of David R. Rumph, MD, who has moved out of the state.

XV. ANNOUNCEMENTS:

Doctor Stone announced the meeting times and places for the Reference Committees on Thursday morning, May 4th, and reminded the Delegates that the Closing Session of the House of Delegates would begin at 9:30 a.m. on Saturday, May 5.

XVI. NECROLOGY REPORT:

The Vice-Speaker of the House of Delegates,

George Kamp, MD, read the Necrology Report. (A copy of the report is attached and made a part of these minutes.)

XVII. ADJOURNMENT OF OPENING SESSION:

The Opening Session of the House of Delegates was adjourned at 3:30 p.m.

NECROLOGY REPORT

Paul V. Annadown, MD, Sulphur
W. O. Armstrong, MD, Ponca City
Roger Q. Atchley, MD, Tulsa
Frances E. Atkins, MD, Tulsa
Steve H. Baker, MD, Yukon
Thomas P. Bigbee, MD, Mooreland
Charles F. Engles, MD, Oklahoma City
Alfred M. Evans, MD, Perry
Herman W. Ford, MD, Tulsa
Newell C. Gaddis, MD, Sand Springs
Robert B. Gibson, MD, Ponca City
Carl J. Hotz, MD, Tulsa
Charles W. Israel, MD, Edmond
O. E. Layton, MD, Collinsville
Judah K. Lee, MD, Tulsa
Frank H. McGregor, MD, Oklahoma City
Paul J. Ottis, MD, Okarche
E. D. Padberg, MD, Ada
Felix R. Park, MD, Tulsa
Edwin R. Reinschmiedt, MD, Clinton
Daniel R. Storts, MD, Tulsa
W. David Stuart, MD, Oklahoma City
Richard M. Taliaferro, MD, Ada
Arnold H. Ungerman, MD, Tulsa

CLOSING SESSION

I. CALL TO ORDER:

The Closing Session of the 73rd Annual Meeting of the House of Delegates was called to order by the Speaker, S. N. Stone, MD, at 9:35 a.m. on May 5, 1979, in the Williams Plaza Hotel, Tulsa.

II. INVOCATION:

The invocation was delivered by C. S. Lewis, Jr., MD, Tulsa.

III. PRESENTATION OF AWARDS:

Doctor Stone welcomed the Delegates to the Closing Session.

A. J. B. Eskridge, III, MD, presented the A. H. Robins Award to Hayden H. Donahue, MD, for outstanding community service.

B. The OSMA Outstanding Layman Award was presented to Mr. Roy Lytle, legal counsel

for OSMA, in recognition of his many contributions to the medical profession, by Doctor Es-
kridge.

C. Marvin K. Margo, MD, presented the OSMA Medical Journalism Award to Mr. Jacques DeLier, President and General Manager of KWTW, Oklahoma City.

D. Doctor Margo presented a gift of appreciation to Mrs. Leon Combs, outgoing President of the Auxiliary to the Oklahoma State Medical Association.

IV. REPORT OF THE CREDENTIALS COMMITTEE:

F. W. Hollingsworth, MD, Chairman, announced that a quorum was present.

V. REPORT OF THE INCOMING PRESIDENT:

William M. Leebron, MD, presented his report to the assembled Delegates, and a copy of this report is attached and made a part of these minutes.

VI. REFERENCE COMMITTEE REPORTS:

All reports considered by the House of Delegates are attached and approved and made a part of these minutes.

REPORT OF REFERENCE COMMITTEE NO. I:

Presented by Stanley R. McCampbell, MD, Oklahoma City.

Reference Committee No. I approved the following items without amendment:

Item II. Special Report — Testimony of Claude Williams, MD

Item IV. Report of the Ad Hoc Committee on Obsolete Medical Procedures

Item V. Report of the Ad Hoc Committee on Independent Practitioners

Item VI. Report of the Council on Members Services

Item VII. Special Report of the Council on Members Services

Item VIII. Report of the Grievance Committee

Item IX. Report of the Physicians Care Committee

Item XI. Resolution No. 1 — Support for State Legislative Activities

Item XII. Resolution No. 2 — Formation of a Captive Insurance Company

Item XIV. Resolution No. 11 — Opposing Optometrists Using Medications

Item XV. Late Resolution No. 15 — Opposing Non-Medically Supervised Speech and Hearing Clinics

Item XVI. Late Resolution No. 16 — Hospital Cost Containment Legislation

Reference Committee No. I approved the following items as amended:

Item I. Report of the Council on Governmental Activities

Page 7, lines 8-10. *That the House of Delegates adopt the testimony of Claude Williams, MD, as a Statement in Principle on cited federal legislation and regulations.*

Item III. Report of the Council on Medical Services

Delete lines 2-4, page 7, Recommendation 1: *1. That the President designate a committee to study problems which have been identified in the Peer Review mechanism by the Peer Review Committee.*

Reference Committee No. I recommended that the following items not be adopted:

Item X. Report of the Ad Hoc Committee on the Endorsement of Commercial Ventures

Item XIII. Resolution No. 7 — Creation of a Council on Products and Services

A motion was made to adopt the report of Reference Committee No. I as a whole. The motion was seconded and passed.

REPORT OF REFERENCE COMMITTEE NO. III:

Presented by Frank Clingan, MD, Tulsa

Reference Committee No. III approved the following items without amendment:

Item I. Report of the Board of Trustees

Item III. Report of the President

Item IV. Report of the President-Elect

Item V. Report of the Treasurer — Report of the Audit Committee.

This item was approved with the notation that several discrepancies in Council budget requests had occurred, but they do not seriously affect the projected surplus for 1979-80 and that the budget is mainly a guide for management and administrative purposes.

Item VI. Report of the Council on Planning and Development

Item VII. Report of the Constitution and Bylaws Committee

Item VIII. Resolution No. 4 - Executive Committee

Item XI. Resolution No. 5 — Planning and Development Council Composition

Item X. Resolution No. 6 — Dues Payment Delinquency Date

Reference Committee No. III approved the following items as amended:

Item II. Supplemental Report of the Board of Trustees

A motion was made to substitute for the one word "honorarium" on page 1, line 10, the words "sum of money" and amend line 11 to read: "provided the President to pay non-reimbursable expenses from \$1,000 to \$5,000. Certain changes . . .", and to amend the Report of the Reference Committee, page 1, line 17, to read: "Trustees has agreed that the sum of money provided the President to pay non-reimbursable expenses should . . ." The motion was seconded and approved, and the Report was approved as amended.

Item XIII. Late Resolution No. 14 — 1980 Dues

This resolution was adopted with the establishment of the following dues structure: *Active Members — \$180 Junior Members — \$10*

Reference Committee No. III recommended that the following items not be adopted:

Item XI. Resolution No. 9 — Compulsory American Medical Association Membership

A motion was made that this resolution not be adopted. There was some discussion on the floor of the House, and a vote was taken to determine if a written ballot was necessary. The House voted in favor of a show of hands, and the question was called for. *The motion was seconded and carried.*

Item XII. Resolution No. 10 — Mandatory AMA Dues

A motion was made to adopt the Report of Reference Committee No. III as a whole. The motion was seconded and passed.

REPORT OF REFERENCE COMMITTEE NO. II:

Presented by Ray V. McIntyre, MD, Kingfisher

Reference Committee No. II approved the following items without amendment:

Item I. Report of the Council on Medical Education

Item III. Report of the Council on Public and Mental Health

Item IV. Report of the Council on Scientific Assembly

Item VII. Late Resolution No. 12 — "Mobile Drug Abusers"

Reference Committee No. II approved the following items as amended:

Item II. Report of the Council on Professional and Public Relations

Page 4, line 23, of the report should read: *G. Educational Activities and Professional Dues — \$2,000.*

Item VI. Resolution No. 8 — "Cost Awareness: Providing a Copy of the Patient's Bill to the Attending Physician"

Reference Committee No. II suggested the following change in this resolution: lines 13 and 14, "bill to the attending physician for a period of time to be locally negotiated between the medical staff and hospital administrators, and thereafter to provide a random sampling of billings for ten per cent of his admissions;"

Dr Victor Robards, Tulsa, made a *motion that the Reference Committee's report be amended to adopt the original resolution as written.* After discussion, *the motion was seconded and passed 45-31.*

Item VIII. Report of the Medical Heritage Committee

The Reference Committee recommended deletion of lines 24-26 on page 2 and lines 1-2 on page 3, and substitution of the following: *"The Committee decided that the OSMA should not become involved in this project."*

Reference Committee No. II recommended that the following items not be adopted:

Item V. Resolution No. 3 — "Resident Membership"

Resolution No. 13 — "Student Membership"

A motion was made to adopt the report of Reference Committee No. II as a whole. The motion was seconded and passed.

VII. ADDRESS FROM TOM E. NESBITT, MD, PRESIDENT, AMERICAN MEDICAL ASSOCIATION:

Doctor Nesbitt gave an informal presentation to the House of Delegates regarding some questions that had arisen during discussions on the floor. He commented on AMA membership solicitation and how it came about, as a need to gather as much strength as possible for organized medicine. When those states who have medical schools encourage the young physician and soon-to-be physician to participate in their county and state medical societies, they expand their potential delegate strength at the AMA House of Delegates.

Doctor Nesbitt also spoke briefly about the Federal Election Committee's interference and the establishment of an AMA "family briefing session" to visit state societies and explain AMA programs and services.

VIII. COMMENTS BY ORANGE WELBORN, MD, CHAIRMAN OF THE OMPAC BOARD OF TRUSTEES:

Doctor Welborn reported on two recommendations by the OMPAC Board, pending legal advice, that would implement bylaws changes. One change would be that members of the Board would be elected for a two-year period of time during the off-political year, and another that the chairman of the Board not be re-elected to serve consecutive terms. He reaffirmed that OMPAC would conduct on-going activities throughout the year.

IX. ELECTION OF OFFICERS:

The following officers were elected by acclamation:

Floyd F. Miller, MD, Tulsa, was elected to the office of President-Elect.

James B. Pitts, Jr., MD, Oklahoma City, was elected to the office of Vice-President.

Armond H. Start, MD, Oklahoma City, was re-elected to the office of Secretary-Treasurer.

Ed L. Calhoon, MD, Beaver, was re-elected to the office of AMA Delegate, Position I.

James B. Eskridge, III, MD, Oklahoma City, was elected to the office of AMA Alternate Delegate, Position I.

X. ELECTION OF TRUSTEES AND ALTERNATE TRUSTEES:

The following Trustees and Alternate Trustees were elected by acclamation.

Trustee District I: Craig, Delaware, Mayes, Nowata, Ottawa, Rogers & Washington

Trustee: Elvin M. Amen, MD, Bartlesville

Alternate: John E. Highland, MD, Miami

Trustee District II: Kay, Noble, Osage, Pawnee and Payne

Trustee: Ellis Oster, MD, Ponca City

Alternate: Fred Harper, MD, Pawhuska

Trustee District III: Garfield, Grant, Kingfisher and Logan

Trustee: Ray V. McIntyre, MD, Kingfisher

Alternate: Joe B. Jarman, Jr., MD, Enid

Trustee District IV: Alfalfa, Beaver, Cimarron, Dewey, Ellis, Harper, Major, Texas, Woods and Woodward

Trustee: M. K. Braly, MD, Woodward

Alternate: Ed Calhoon, MD, Beaver

Trustee District V: Beckham, Blaine, Canadian, Custer, & Roger Mills

Trustee: F. W. Hollingsworth, MD, El Reno

Alternate: William M. Leebron, MD, Elk City

Trustee District X: Haskell, Hughes, Latimer, LeFlore, Pittsburg & Seminole

Alternate Trustee: Robert K. Jackson, MD, McAlester

XI. ANNOUNCEMENTS OR NEW BUSINESS:

Dr Orange Welborn, Ada, introduced a late resolution as follows: "Whereas, Mayor Jim Inhofe and the beautiful City of Tulsa have extended their warmth and hospitality to the Oklahoma State Medical Association; and

Whereas, The Williams Plaza Hotel has graciously extended its facilities and expertise to implement OSMA's Annual Meeting; and

Whereas, Dr Victor Robards and the Tulsa County Medical Society have worked diligently and effectively in organizing and serving as our host medical society; therefore be it

RESOLVED, That the Oklahoma State Medical Society extend to each of these groups our appreciation for making the 73rd Annual Meeting of OSMA a pleasant experience and a successful, meaningful meeting, and OSMA expresses its hopes to revisit Tulsa in our future convention activities.

A motion was made to adopt this resolution, and it was seconded and approved unanimously.

XII. ADJOURNMENT:

The 73rd Closing Session of the OSMA House of Delegates adjourned at 12:20 p.m.

**Report of
Reference Committee No. I**

Mr. Speaker and Members of the House of Delegates, Reference Committee No. I has carefully considered the items which were referred to it and submits the following report:

ITEM I.

**Report of the
COUNCIL ON GOVERNMENTAL
ACTIVITIES**

Mr. Speaker, your reference committee commends the chairman and members of this very important OSMA Council. Your reference committee corrected minor grammatical and typographical errors in the report and wishes to point out to the delegates that Recommendation No. 1 of the Council report only modifies

the existing OSMA accounting procedure as it regards Mr. Montgomery's pay. The reference committee understands from the Council Chairman and the OSMA Officers that the decision to continue Mr. Montgomery's employment will still be accomplished by recommendation from the Council and approval by the Board of Trustees and this House of Delegates.

The reference committee recommends that Recommendation No. 6 of the Council Report be modified as follows: *"That the House of Delegates adopt the testimony of Claude Williams, MD, as a Statement in Principle on cited federal legislation and regulations."*

Mr. Speaker, we recommend adoption of this portion of the report.

ITEM II.

Special Report

TESTIMONY OF CLAUDE WILLIAMS, MD

Mr. Speaker, your reference committee congratulates Dr Williams on the fine testimony he presented before the Finance Committee of the United States Senate. *Mr. Speaker, your reference committee recommends that Doctor Williams' testimony be filed for informational purposes.*

Mr. Speaker, I move adoption of this portion of the report.

ITEM III.

Report of the

COUNCIL ON MEDICAL SERVICES

Mr. Speaker, your reference committee carefully reviewed the report of the Council on Medical Services and would specifically recognize the outstanding work of its Peer Review Committee. The Delegates should be aware that the members of this committee give many hours of voluntary time to the adjudication of medical disputes, and it is apparent from the report of the Council that the Committee needs special help and consultation in certain areas. However, Recommendation No. 1 of the Council is in apparent conflict with Recommendation No. 5. Since the President of the Association and the Board of Trustees have the authority to create special committees for Association activities, it is recommended that Recommendation No. 1 be deleted.

Mr. Speaker, I move adoption of the report of the Council on Medical Services as amended.

Mr. Speaker, I move adoption of this portion of the report.

ITEM IV.

Report of the

AD HOC COMMITTEE ON OBSOLETE MEDICAL PROCEDURES

Mr. Speaker, your reference committee recommends approval of this ad hoc committee's report.

Mr. Speaker, I move adoption of this portion of the report.

ITEM V.

Report of the

AD HOC COMMITTEE ON INDEPENDENT PRACTITIONERS

Mr. Speaker, your reference committee recommends approval of the Ad Hoc Committee on Independent Practitioner's report.

Mr. Speaker, I move adoption of this portion of the report.

ITEM VI.

Report of the

COUNCIL ON MEMBERS SERVICES

Mr. Speaker, your reference committee would like to commend the Council Chairman and its members on the many hours of hard work to come up with the excellent programs afforded to the Oklahoma State Medical Association Membership. The Committee also recognizes the valuable service of C. L. Frates & Company.

Mr. Speaker, I recommend adoption of the report of the Council on Members Services.

Mr. Speaker, I move for adoption of this portion of the report.

ITEM VII.

Special Report of the

COUNCIL ON MEMBERS SERVICES

Mr. Speaker, your reference committee reviewed the report and recommends approval of the special report. The reference committee received a great deal of input on the special report in explanation of a captive insurance company. The reference committee makes special commendation to the Council on Members Services for their excellent detailed report including answers to some very basic concerns. Due to the completeness of the report, there were very few questions left unanswered. *Mr. Speaker, I therefore recommend approval of the*

Special Report of the Council on Members Services.

Mr. Speaker, I move adoption of this portion of the report.

ITEM VIII.

Report of the
GRIEVANCE COMMITTEE

Mr. Speaker, your reference committee recommends approval of the Grievance Committee's report.

Mr. Speaker, I move adoption of this portion of the report.

ITEM IX.

Report of the
PHYSICIANS CARE COMMITTEE

Mr. Speaker, your reference committee recommends approval of the Physicians' Care Committee's report.

Mr. Speaker, I move adoption of this portion of the report.

ITEM X.

Report of the
AD HOC COMMITTEE ON THE ENDORSEMENT OF COMMERCIAL VENTURES

Mr. Speaker, your reference committee has read and discussed the Special Report of the Ad Hoc Committee on the Endorsement of Commercial Ventures. After much discussion, the committee recommends that the special report be accepted as an informational item but disapproves the recommendation. The testimony to the reference committee and the opinion of the reference committee was that the OSMA should avoid involvement in any commercial ventures.

The committee recommends that the report on commercial ventures not be adopted.

Mr. Speaker, I move that this portion of the reference committee report be adopted.

ITEM XI.

RESOLUTION NO. 1.

Mr. Speaker, your reference committee heard considerable testimony on Resolution No. 1 concerning voluntary support for state legislative activities. The committee was made aware of the substantial political influence that could be gained by broad support of Resolution No. 1. The committee makes special note of the language "hereby urged to contribute . . ." to stress the importance of Resolution

No. 1. being voluntary. The committee suggests that the Oklahoma Medical Political Action Committee strive to inform the membership of the Association of the advantages of aggressive political action and recommends to the OMPAC Board that they furnish the membership with specific information on political races and legislative issues. *Mr. Speaker, we recommend adoption of Resolution No. 1.*

Mr. Speaker, we move adoption of this portion of the report.

ITEM XII.

RESOLUTION NO. 2.

Mr. Speaker, your reference committee, after considering the information contained in the Special Report of the Council on Members Services, recognizes the vital importance of establishing the captive insurance company to insure the availability of insurance to OSMA members and, therefore, recommends adoption of Resolution No. 2.

Mr. Speaker, I move we adopt this portion of the report.

ITEM XIII.

RESOLUTION NO. 7.

Mr. Speaker, your reference committee, in order to comply with our previous recommendation of the report of the Ad Hoc Committee on the Endorsement of Commercial Ventures, recommends Resolution No. 7 not be adopted.

Mr. Speaker, I move adoption of this portion of the report.

ITEM XIV.

RESOLUTION NO. 11

Mr. Speaker, your reference committee considered Resolution No. 11 and requests it be adopted.

Mr. Speaker, I move to adopt this portion of the report.

ITEM XV.

LATE RESOLUTION NO. 15

Mr. Speaker, your reference committee heard a very explanatory testimony on this Resolution given by the Chairman of the Department of Otorhinolaryngology of the Oklahoma University Health Sciences Center. After much discussion, it was the unanimous decision of the reference committee that *we recommend adoption of Late Resolution No. 15.*

Mr. Speaker, I move to adopt this portion of the report.

ITEM XVI.

LATE RESOLUTION NO. 16

Mr. Speaker, your reference committee received Late Resolution No. 16 from the OSMA Board of Trustees. *It was the unanimous consent of the committee that this Late Resolution be adopted.*

Mr. Speaker, I move that this portion of the report be adopted.

Mr. Speaker, I move the adoption of this report as a whole.

Mr. Speaker, as Chairman of this reference committee, I would like to thank the committee members and the staff for their cooperation and work on this committee report.

Stanley R. McCampbell, MD, Chairman
John Blaschke, MD
Robert Shepard, MD
John A. McIntyre, MD
William McDoniel, MD
James Funnell, MD
Michael Haugh, MD

Reference Committee No. I

Report of the COUNCIL ON GOVERNMENTAL ACTIVITIES

(APPROVED AS AMENDED)

INTRODUCTION:

The goal of the Council is to conduct the full legislative program for the Oklahoma State Medical Association. The Council is to review, monitor and appropriately act upon Federal and State legislation and regulations of concern to the medical profession. It is to establish and maintain relationship with Federal and State Governmental entities having statutory and regulatory jurisdiction affecting the medical profession's delivery of health care or the public health and safety. In cooperation with the Association's other councils and committees, it is to communicate the activities of this council with the members of the Oklahoma State Medical Association. When necessary, the Council is to develop policy recommendations with respect to legislation and regulations for consideration by the Board of Trustees.

REVIEW OF COUNCIL ACTIVITIES: FEDERAL ACTIVITIES

The Council has substantially increased its interest in Federal legislative and regulatory activities during the past two years. In 1977, the Association retained the services of John

Montgomery, a Washington, D.C. attorney, to assist us in liaison with the Oklahoma congressional delegation and with certain Federal agencies that regulate medical and hospital practice.

Of principal interest to the Delegates will be the General Accounting Office audit of the OURS program. The comprehensive review was done at the request of Senator Bellmon for the purpose of determining the cost effectiveness and savings accomplished by the retrospective hospital utilization review program. The report, which will be published in the very near future, indicates that the Title 18 and 19 agencies saved in excess of eleven million dollars because of the OURS program. We have briefed the congressional delegation on two occasions about the success of OURS, most recently in February when we received the preliminary GAO audit. Without exception, our congressmen and senators support the continued funding of the OURS programs.

The Health Care Financing Administration will begin a comprehensive evaluation of the OURS program this spring to validate the savings generated by OURS. The Delegates should be aware that HEW is not generally supportive of the demonstration project nor the approval of OURS as the PSRO for Oklahoma because it does not conform to the HEW designed PSRO prototype.

It is anticipated, however, if the HEW evaluation is positive, the OURS program will continue as the PSRO for Oklahoma.

Representatives of the Association met with congressmen, senators and/or representatives of their staff on February 22 and 23 for the purpose of:

(a) Explaining the preliminary GAO audit of the OURS program;

(b) Reaffirming the Association's support of OURS;

(c) Requesting that Oklahoma be permitted to demonstrate hospital cost savings on the basis of regulation by exception; and

(d) Suggesting that a demonstration project be considered that would improve physician participation in Medicare-Medicaid programs by offering a tax credit for non-reimbursable portions of medical services rendered to Medicare and Medicaid recipients.

The group also met with ranking staff of the Health Care Financing Administration to discuss the OURS program and regulations that adversely affect the operation of hospital

laboratories. In general, the meetings with elected officials went extremely well. There was unanimous support for the OURS program and for relief from onerous regulations. Most felt the tax credit idea had merit but felt, in view of the negative feelings about the high cost of medical care, it had little chance for favorable action.

The majority of our elected representatives feel that no National Health Insurance proposal, particularly a comprehensive coverage plan would be legislated in the foreseeable future. Some feel that a catastrophic proposal may receive favorable consideration.

The Administration's Cost Containment Bill is gaining support in the Congress principally because the mandatory controls do not go into effect unless the 9.7% "CAP" is exceeded. In addition, the administration has exempted hospitals that have less than 4,000 discharges per year, which would eliminate most Oklahoma hospitals from mandatory control.

Two other bills of major importance are Senator Talmadge's Reform of Medicare-Medicaid and the 1979 Clinical Laboratory Licensing Act. Both bills would have a direct and adverse effect, particularly on hospital based physicians. One of the proposals would redefine physicians' services to exclude, for reimbursement purposes, many of the services that are not being rendered by auxiliary medical personnel, *ie*, an injection given by a nurse would no longer be reimbursable to the physician.

Claude Williams, MD, Okeene, Oklahoma, testified on March 13, before the Senate Finance Committee. A copy of Doctor Williams' statement is attached. (EXHIBIT "A")

There is also attached (EXHIBIT "B") for the House of Delegates' information, a copy of a letter from the Chairman of the Council on Governmental Activities to David Boren identifying certain concerns in SB 505.

The Council plans to continue its Health Forums in 1979-80.

STATE ACTIVITIES

The OSMA State Legislative Committee met five times since January 1, to review legislation. The Committee has actively been monitoring sixteen (16) pieces of legislation during this legislative session.

OBJECTIVE(s):

The Council on Governmental Activities, in

an effort to more closely review and monitor Federal health legislation and regulation, hired John Montgomery to represent OSMA in Washington. He provides OSMA with a monthly report outlining his activities in the area of health and any specific projects assigned to him. He also regularly provides OSMA with updates, synopses and status reports of numerous Federal health bills. All of this information combined, helps the Council to make more informed decisions about the necessary action to be taken on a specific piece of legislation.

The Council on Governmental Activities, in an effort to more closely review and monitor State legislation has established a special Legislative Committee to meet on a regular basis during the Legislative session and deal with the bills introduced in the Oklahoma Legislature.

The Council on Governmental Activities, in an effort to establish and maintain a relationship with State governmental entities, uses Lyle Kelsey, OSMA staff lobbyist and the State Legislative Chairman as a means to accomplish that goal.

The Council on Governmental Activities, in an effort to communicate their activities with the medical profession has utilized the method of a Newsletter to alert physicians of the legislative and regulative atmosphere.

The Council on Governmental Activities, in an effort to maintain a working relationship with Federal governmental entities has endorsed two (2) trips to Washington by representatives from OSMA for the purpose of educating the congressmen and their respective staffs to the needs and concerns of Oklahoma.

RECOMMENDATIONS:

1. To renegotiate an employment contract with John Montgomery for the year, August, 1979 to August, 1980 (to be supported by special report to the House of Delegates).

2. To continue the State Legislative Committee activities;

3. To conduct two (2) Health Forums with Federal legislators during the year 79-80;

4. To conduct more liaison trips to Washington;

5. To produce a regular, quality Federal and State Legislative Newsletter.

6. That the House of Delegates adopt the testimony of Claude Williams, MD, as a State-

ment in Principle on cited federal legislation and regulations.

Respectfully submitted,
Perry A. Lambird, MD, Chairman
George H. Kamp, MD
Donald L. Brawner, MD
Leonard R. Diehl, MD
William E. Dieker, MD
Jerome M. Dilling, Jr., MD
Robert S. Ellis, MD
Mrs. J. B. Eskridge, III
John T. Forsythe, MD
Burdge F. Green, MD
Joe C. Horton, MD
William L. Hughes, MD
Leroy M. Milton, MD
John R. Smithson, MD
Lanny F. Trotter, MD
Orange M. Welborn, MD
Ronald H. White, MD
Chauncey Witcraft, President, AMSA

EXHIBIT "A"

SPECIAL REPORT

Summary of the Testimony of
C. H. Williams, MD, Okeene, Oklahoma
(*APPROVED*)

Claude H. Williams, MD, is a practicing physician from a small community in northwestern Oklahoma. He is on the staff of five Oklahoma hospitals, each of which has 50 beds or less. He is also a member of the Board of Directors of the PSRO organization in his state and serves as chairman of the team of physicians that reviews patient utilization and hospital practices of 26 small Oklahoma hospitals.

Doctor Williams' testimony cites four specific areas of hospital practice that are adversely affected by federal regulation.

1. Medicare-Medicaid requirements for hospital committees and record keeping;
2. The Life-Safety Code;
3. Medicare-Medicaid hospital reimbursement policy; and
4. Hospital laboratory regulations.

Doctor Williams reviews the success of Oklahoma's hospital utilization review plan and the Voluntary Effort, and closes with an appeal that government and medicine set mutually acceptable goals without federal encumbrances. He urges the Committee to study the cost of administering a federally mandated cost containment program and asked for a deregulation of hospitals.

Statement
of
C. H. WILLIAMS, MD,
OKEENE, OKLAHOMA
Before the
Senate Finance Committee
on

S 505, The Medicare-Medicaid Administrative
and Reimbursement Reform Act of 1979

March 13, 1979

Mr. Chairman and Members of the Committee:

I am Claude H. Williams, MD, from Okeene, Oklahoma. I have practiced family medicine in Okeene and surrounding Oklahoma communities for 29 years. I am an active member of five hospital staffs in Oklahoma — Fairview, Woodward, Waynoka, Seiling and Okeene. Each of these hospitals has 50 beds or less. I am also on the Board of Directors of the Oklahoma Foundation for Peer Review, the PSRO in our state, and I am Chairman of the Utilization Review Committee for northwest Oklahoma. This committee represents 26 rural Oklahoma hospitals.

I consider it a great honor to be here today representing rural medicine before this Committee and testifying on S 505, the Medicare-Medicaid Administrative and Reimbursement Reform Act of 1979.

Mr. Chairman and Members of the Committee, during the course of these hearings you will hear from a number of medical experts who are far more knowledgeable about the specifics of this bill than I am. During the time allotted me, I would like to describe some specific situations, created by federal rules and regulations that make it extremely difficult for our small hospitals to survive and for me to care for my patients. In my closing remarks I will offer, what many of us consider, a reasonable solution to these problems.

As a family physician who practices in a rural community, I know well the problems my patients face. I know these people personally, and I share their concern and yours over the rising cost of health care. I feel as you do that steps must be taken to lower the rate of increase in health care costs.

I sincerely believe that our rural hospitals and community health centers are America's front line defense against illness and disease. It is at this level of medical care that the public gets the most value for its health care dollar. It is here that medical care is delivered and

health care dollars are saved through preventive medicine, early diagnosis and treatment. America's rural doctors and small medical institutions are the entry point into the health care system for millions of our citizens. They are America's first line of medical care. But today, our rural community hospitals and health care centers, manned by medical staffs of two to five doctors with 50 beds or less, face a desperate situation . . . desperate because of oppressive, burdensome, cost escalating rules and regulations that have been developed by and for someone else. These rules and regulations are directed at larger medical complexes, but unfortunately, they are rules and regulations that all of us are required to follow.

Rural medicine is unique. To some degree rural physicians must be all things to all people. We must conduct active out-patient clinics. We must admit, diagnose and treat acute and self-limiting illnesses. We must practice preventive medicine. We care for the terminally ill, and we refer patients who need sophisticated treatment or diagnostic procedures to larger metropolitan centers. To a large degree we must be self reliant, and during a typical day we may be called upon to perform a number of different medical roles. To accomplish our mission, however, we must have relief from the ominous regulations that take too much of our time from patients. We are burdened with massive paperwork and the compliance with federal regulations that creates a severe drain on our professional manpower and keeps most of our hospitals in a financial crisis year after year.

Let me cite some specific examples.

1. For example, the hospitals at which I practice . . . all small hospitals with 50 beds or less . . . are required to staff the same number of committees, maintain the same kind of records and generate the same number of reports to HEW as a 1,000 bed hospital with hundreds of doctors on its staff. This not only places a tremendous time burden on our current staff, but it also makes it difficult to recruit new doctors to the area.

Now, in addition to our medical-record keeping, our administration has been told that it must organize its accounting records to conform with the new "SHUR" regulations. This overwhelming record-keeping system will create havoc for an already strained adminis-

trative staff. Further, it is difficult for me, as a physician, to understand how this tremendously complex accounting process, requiring 68 legal size reports, can benefit patient care or reduce hospital costs.

II. The life safety code, while well intended, presents unrealistic burdens for a small, one-story, rural hospital such as those in my area. Meeting these codes costs rural hospitals between \$25,000 and \$50,000 per year. While the intentions of this code are good, we all know that it is the consumer, my patients, who ultimately must bear the financial burden created by these costly regulations.

III. Under the present fiscal reimbursement policy of Medicare and Medicaid, hospitals are never fully reimbursed for their costs. Even if a hospital is frugal and builds up a surplus through efficient buying and good management, Medicare will then demand that we return the surplus. This happened in one of the hospitals at which I practice even though a large percentage of the surplus was generated by patients other than Medicare and Medicaid. In this particular case our rate of return from Medicare was lowered from 82% to 75% until we again showed a deficit. At this point our rate of return was increased again to 82%. This practice is both counter-productive and in direct conflict with the principles of good business practice. In a not-for-profit hospital such as those where I practice, room rates are only increased in order to meet a financial crisis. Medicare's reimbursement policy makes it impossible to deal with these problems. It is a vicious circle in which rural hospitals and our patients are the losers.

IV. The regulations which have been placed on laboratories in rural hospitals are simply unworkable. Our laboratories are small and yet they perform a vital service for the people of rural America. The quality control system and daily logs which were designed for sophisticated laboratories in metropolitan health centers are simply unworkable in Okeene, Oklahoma.

These are only a few of the many problems we physicians in rural parts of the country face. There are many others, but for the sake of time, I mention only these.

Ladies and gentlemen, I sincerely hope that I have adequately explained to you the plight that rural hospitals face today because it is indeed serious. To be blunt, relief from these

regulations is a *MUST*. Otherwise, America's rural health care problems will only worsen.

As I stated before, I share your concern about rising costs. I share your desire to help our hospitals run more efficiently. I share your desire to improve the type of health care which is delivered. I share your desires, but I do not necessarily endorse your methods. In the past the federal government has attempted to legislate these changes . . . to force them upon us through legislation or regulation. I share your desires, but I would much rather work with you in accomplishing common goals.

Four years ago 50 Oklahoma hospitals were faced with the very real prospect of closing their doors. Utilization review regulations handed down from Washington were forced upon the people of my state. Unfortunately for us, however, 50 of our hospitals simply could not meet these regulations. But, with the help of our Senators and Representatives and Members of the Staff of this Committee, we were able to put together a superior utilization review plan. We were exempted from the unworkable federal regulations, and today, these hospitals are still delivering vital care to our rural residents.

Because we were allowed to implement our own solution to the problem in the manner best suited for Oklahoma, the Oklahoma Utilization Review System proved to be one of the nation's most effective. It was implemented in its first year at a cost of \$180,000 and it generated savings in the neighborhood of \$15,000,000. Incidentally, after OURS was approved by HEW as an operational PSRO and after complying with HEW's organization standards and its rules and regulations, the OURS budget jumped from \$180,000 to \$1.5 million. In spite of this, the Oklahoma plan which was devised and operated by Oklahoma doctors is one of the most efficient in the nation. We accomplished the regulatory objectives of utilization review without all of the burdensome regulations. We are proud of this and we believe it proves we can accomplish more by working together than we can by opposing each other.

We have similar accomplishments in our Voluntary Effort. Our rate of increase in cost per patient stay last year was 11.3%, down 4.6% from 1977. This reduction was gained without additional federal administrative effort. We think we can further decrease costs voluntarily, which is superior to several of the

cost containment proposals pending before the Congress.

Ladies and gentlemen, while this presentation does not address specific sections of the legislation pending before the Committee, the general theme of this testimony should be obvious — we need freedom from regulation. We need to set common goals but then be given the opportunity to develop our own methodology for accomplishing them. We need to provide incentives for improving rural health care services, not the disincentives that encumber our medical practice. We urge that you give serious consideration to the cost of implementing cost containment programs and other regulatory proposals that often serve only to place additional unwanted and unnecessary restrictions on the practice of medicine and to cause corresponding increases in its cost. We further urge you to give serious consideration to the savings which would result from deregulating the profession.

EXHIBIT "B"

March 16, 1979

Honorable David Boren
United States Senate
Russell Senate Office Building
Washington, D.C. 20515

Dear Senator Boren:

The 3000 physicians in the state of Oklahoma need your help!

Senate Bill 505 would substantially harm all Oklahomans by setting in place procedures and practices that would crucially change medical practices and laboratory medicine. Laboratory medicine has been responsible for a very large proportion of medicine's improved diagnostic and therapeutic skills noted in recent decades. The diagnosis of curable forms of hypertension, the early detection of cervical cancer, recognition of the coronary prone individual, control of diabetes mellitus, and literally thousands of other equally important procedures would either be impaired or made unreliable by this bill.

The critical sections of S 505 are Sections 6, 10, 19, and 27.

Section 6 would totally redefine, by legislation, the entire practice of medicine. Further, it would by legislative fiat, eliminate the entire practice of clinical pathology since it would define clinical pathologists out of the practice of medicine. We have made great strides in

Oklahoma in increasing the productivity and availability of physicians through appropriate use of physician extenders. Whether laboratory technologist, physician's assistant, office nurse, or secretary, there is no doubt that they have extended medical care resources in Oklahoma. But *Section 6 would ban any payment for physician services not "personally performed by or directed by a physician."* From blood glucose determinations to well-baby examinations, from supervision of nurse anesthetists to the over-reading by a cardiologist of computer interpreted electrocardiograms, the physician *morally responsible and legally liable* for the quality and outcome of these procedures could not be compensated as a physician! Not only can we safely predict that this section will essentially halt the innovative use of lesser trained personnel in medical care, but as physicians (and patients ourselves) we believe that every individual would strongly prefer that the control of items of significant importance to his or her health be vested in *qualified and experienced physicians*, not laymen.

As we understand the legislative history of Section 6, it was originally proposed by Senator Talmadge to control the income of a small number of "horror story" pathologists who were deemed to be receiving "excessive income" by serving as directors of laboratories under percentage contract arrangements. There are no similar situations in Oklahoma, and even if there were, Section 19 of this bill would eliminate such abuses by the easily controlled method of banning percentage contracts. Accordingly, not only is Section 6 redundant regarding this goal, it is a classic example of overkill, the result of which would disrupt the quality of medical care beyond belief.

With respect to Section 6, we wish to make clear that this is of concern to *all* physicians in Oklahoma and elsewhere. The language of this bill was reviewed by the House of Delegates of the Oklahoma State Medical Association who, after consideration and deliberation, passed *unanimously* a resolution opposing the language of Section 6. Our anesthesiology and pathology colleagues are essential to proper medical care. We wish to continue to be free to attempt to increase the productivity of physicians through the use of allied health professionals, but we do not wish to surrender the

responsibility of patient care to nonphysicians (e.g., medical technologists) nor do we wish to find either our practices or your medical care defined and limited by the Health Care Financing Administration. We are in complete concert with the American Medical Association in this regard.

Section 19 would eliminate most, if not all, percentage and lease arrangements for medical services and, if strictly interpreted, also eliminate such items as the cardiologist's interpretation of an electrocardiogram fee (if not separately billed), and a neurologist's interpretation of an electroencephalogram fee (again, if not separately billed), etc. We have data from Oklahoma City which suggest that such arrangements are, in fact cost saving. In the laboratory area, the total payments to hospitals for laboratory services are *higher* to those institutions having salaried pathologists than they are to those whose pathologists are on percentage arrangements. This is logical, since no part of any increase in laboratory fees by a hospital is lost from hospital revenues if salary arrangements are employed. Further, such contracts are administratively simple and direct. Nonetheless, if the goals of Section 6 and Section 19 are to limit the income of physicians, and if such limitations are deemed necessary, then we would strongly prefer that *only section 19 be adopted and that Section 6 be eliminated*. This combination of steps would place all physicians on a precisely equal footing with respect to physician reimbursement.

Section 10 (a) (3) (C) is another clear and present threat to the health care of Oklahomans. It provides that "medical services, supplies and equipment," which the Secretary of HEW determines do not vary in quality will be reimbursed at the "lowest charge level." We have no quarrel with this provision for supplies and equipment, most of which can be covered by bid specifications and in which quality factors can be defined (durability, etc.). We have had experience within the state of Oklahoma, however, with definitions of equal quality *medical* services as made by the Secretary. For instance, the Secretary, through the Health Care Financing Administration, has already defined pap smears to be of equal quality if the laboratory has a license issued by HCFA. Unfortunately, there are virtually *no* requirements to obtain a license to do cytologic studies. This has led to the Secretary deeming

to be of equal quality laboratories as divergent as:

1. One laboratory which follows the voluntary standards of the American Society of Cytology and limits the number of pap smears that a technologist may examine to 12,000 per year (a standard adopted because of observable visual fatigue and a markedly increased error rate with overload). Another laboratory, bearing the same licensure which has as a *minimum* standard requiring each technologist to screen *at least 40,000* cases per year. This is precisely the trap discovered by the US Air Force several years ago by bidding lowest price pap smears. It resulted in missed cervical cancers, numerous other laboratory errors, and, we understand even patient deaths.

2. One laboratory requires that all "not normal" smears, all "unsatisfactory" smears, and at least 10% of all smears deemed "normal" by a technologist be reviewed by a pathologist specially trained in cytopathology. Another laboratory (carrying equal licensure authority) allows a physician (not trained specially in cytopathology) review only cases *thought* to be cancers. The mutilation of patients by this latter method is not inconsiderable. The technologist is trained only to recognize something as "not normal." We have had instances where hysterectomies were performed for "persistently abnormal" pap smears when the only problem was atrophic vaginitis (which is curable in a matter of days with topical drug therapy). Hundreds of young women have been subjected to cervical conization (with the subsequent risk of infertility or obstetrical complications) for benign viral induced changes in the cervix.

3. One laboratory staffs to near peak work levels to assure that no physician or patient need be delayed longer than 24 hours before knowing the results of the examination. Another laboratory keeps a minimum staff resulting in up to seven weeks to issue the results. This means that patients are lost to important follow-up with this extended delay. Some patients with severe disorders have been lost to needed medical care because of such delayed results.

Yet, the Secretary has deemed such laboratories to be of equal quality and has determined that "turnaround time" is not a significant quality difference. And they all possess an identical HCFA license!

These examples could be continued ad nauseum. They are the clear result of removing the control of the quality of medical practice from physicians and vesting this authority with the Secretary.

We would strongly urge that "medical services" be deleted from Section 10. If there exists some towering need for their inclusion, however, we would suggest that determinations regarding the quality of *medical services* be vested in the Professional Standards Review Organizations which are already under the mandate of Congress to make such determinations.

Section 27 repeats and extends the quality of problems of Section 10 by requiring competitive bidding for laboratory services for all Medicaid patients. The examples above make clear why competitive bidding is so treacherous in the medical environment. We should point out that had this section been law several years ago, Medicaid laboratory work in Chicago, for example, could have gone to the Medicaid "mills," whose fraudulent activity has been so well documented. *None of these mills was directed by a pathologist.* Yet there is no possible way that a pathologist directed laboratory can compete on the basis of price alone with nonphysician directed laboratories, whose prime concern is not quality medical care, but profit. As we understand the legislative history of this section, it arose because of the desire of New York City to experiment with just such a program. As physicians we believe this would be terribly bad medicine. It would force us and our patients to use laboratories not directed by physicians and whose quality and performance are suspect. If there is felt to be pressing legislative need for a trial of such a practice, however, we would urge that the legislation simply enable no more than a few jurisdictions to experiment with this process, rather than put the health of the entire nation in jeopardy. It would also be wise to limit such experiments to compact urban areas, since the delivery of rural laboratory services would be impossibly disrupted.

In closing, we thank you for attention to and patience with this admittedly long letter. Despite its length, it barely touches on all of the problems that Sections 6, 10, 19, and 27 would pose for Oklahoma. We would be pleased to meet with you to more fully discuss these points and others if you would like. Your help

would be deeply appreciated and long remembered.

Sincerely yours,
Perry A. Lambird, MD, Chairman
Council on Governmental Activities
Oklahoma State Medical Association

PAL:sky
bcc: D. Bickham

Report of the
COUNCIL ON MEDICAL SERVICES
(APPROVED AS AMENDED)

INTRODUCTION:

The Council has been charged with the duties of studying, making decisions and formulating activities with respect to the provision of adequate medical care, including, but not limited to, the design or evaluation of all types of health care delivery systems, health planning, the financing of medical services, and its impact on the quality of patient care, the social aspects of health, internal peer review mechanism, and the appraisal of all external programs which affect the cost or quality of medical care.

REVIEW OF ACTIVITIES:

A. *Health Planning* – When referring to health planning in the state of Oklahoma, you are talking about the Health Systems Agency, the State Health Coordinating Council, and the Oklahoma Health Planning Commission. All three of these organizations are working together in finalizing the health plan for Oklahoma. The majority of the plan is being drawn up by the Health Systems Agency and will eventually be scrutinized by the State Health Coordinating Council and individually meshed together with a similar plan being drawn up by the Oklahoma Health Planning Commission. The Health Systems Agency portion of the plan has received approval and support from the regional office of HEW in Dallas.

The health planning process in Oklahoma has been slowed briefly due to the controversy surrounding the original designation of the existing HSA. In 1976 when HEW asked for applications from interested parties to be designated as the HSA of Oklahoma, there were two who applied. The existing HSA and a group called the Health Systems Agency of Oklahoma Inc. Because the HSAOK's application was late being received by HEW, it was not accepted and the existing agency known as

Oklahoma Health Systems Agency, Inc. was designated. After a brief session in a local trial court it was ruled that HEW had acted properly in not accepting the late application. However, during the appeal to the Tenth Circuit Court of Appeals, the Federal Court ruled that HEW had not acted properly and should reconsider both applications with the situation being the same as it was in 1976. In the meantime, the Oklahoma Legislature decided that there had been an improper decision on designating the existing HSA and they voted to disband the existing HSA and start over. Resolutions were drawn up and passed through both the House and Senate which called for Governor George Nigh to notify the Secretary of HEW of the Legislature's desires. The meeting was set in Dallas to rehear both applications and again the existing agency was given the approval to continue with their work. During the same time period, the Oklahoma Health Systems Agency, Inc., which is budgeted on a year to year basis, was due approval from HEW to continue their work for another year. HEW has so ruled, and the existing HSA is still in business and funded for another year.

B. *Peer Review* — Approximately 110 cases were reviewed this past year with very few problems involved. The Peer Review Committee has pointed out some problems which the Council is going to have to look at in the near future. Those include the possible redefining the purpose of the Peer Review Committee and the development of policy statements which will possibly aid the Committee in hearing certain cases which appear to recur very often such as policy statement concerning the use of physician assistants, a policy statement as to what to charge for the use of a PA, a policy statement concerning the use of co-surgeons, a policy statement concerning the use of assistant surgeons and a policy statement concerning the use of microsurgery. The Council on Planning and Development has recommended that the OSMA President create an ad-hoc committee to study the aforementioned problems.

C. *Physician Placement* – In our report last year, the Oklahoma Council for Health Careers, which has handled what physician placement has taken place, was suffering from lack of direction and funding. There has been little improvement and it appears that much of the support is being withdrawn which will

(Continued on page 239)

(Continued from page 234)

eliminate its ability to provide any worth to OSMA.

D. *Emergency Medical Services* – Emergency Medical Services in Oklahoma are continuing progress. A plan which OSMA supported, but did not materialize this year was the use of the Emergency Medical Physician's Program to draw physicians who would be willing to serve on a short-term basis in a community where the sole physician has been incapacitated due to illness or other circumstances. OSMA will continue to support the University in this endeavor.

The major stride in Emergency Medical Services in Oklahoma over the last year and a half has been in the area of creating the Oklahoma Emergency Medical Services Systems I Board which primarily serves the southeastern portion of the state and very lately the creation of the Oklahoma Emergency Medical Services Systems II Board, to serve primarily the southwestern portion of the state. OSMA continues to support these programs and many of our members serve on various emergency medical services boards and committees.

E. *Workers' Compensation* – Since July of 1978 the state of Oklahoma has been operating under a new Workers' Compensation Law which has provided coverage to practically all employees in the state. Again, in January 1979, the law changed to include another portion of the population. At this time the only occupation that is not covered under the new Workers' Compensation Law is domestic employment.

Not only has the law changed as far as who is covered, but also in the area of legal proceedings, how a person is examined, what methods are used, and what information the courts will use in making their determination. The paperwork which has to be filled out by physicians who see a workers' compensation case has also changed. OSMA and the Bar Association were given the task by Oklahoma Industrial Court to create some guidelines to be followed throughout the state of Oklahoma. In order for OSMA to aid its members in understanding how the new Workers' Compensation Law affects their practice, seminars were held in Tulsa and Oklahoma City.

F. *Ad Hoc Committee on Independent Practitioners* – Due to the increased number of independent practitioners throughout the State and the apparent lack of control in some cir-

cumstances, the Board of Trustees felt it was necessary for OSMA to investigate and develop a policy concerning independent practitioners. Marvin K. Margo, MD, President, appointed an ad hoc committee to be chaired by C. S. Lewis, Jr., MD. It was the feeling of the committee that the major concern was that of independent nurse practitioners. Therefore, Dr Lewis invited the Nurses' Association to develop a similar committee and through a joint effort tackle the task of identifying areas in which doctors and nurses can work together on a more collaborative basis. The joint task force has had one meeting, a second meeting has been scheduled and eventually will conclude with the writing of a report which will be presented to the Board of Trustees.

G. *Ad Hoc Committee on Obsolete Medical Procedures* – Recently the results of a joint study between the National Association of Blue Shield Plans, the American College of Physicians and the American College of Radiologists was released, and it identified certain medical procedures, tests, and treatments that are now considered scientifically or medically obsolete. The purpose being that eventually these procedures, tests, and treatments will not be reimbursed on a routine basis. This situation was referred to the Council on Medical Services and a committee was formed to review the results of the study. Once the committee has reached a conclusion, a recommendation will be made to the Council on Medical Services which will then be forwarded to the Board of Trustees for their final action.

An interim report of the Ad Hoc Committee on Obsolete Medical Procedures has been provided at the end of this report.

OBJECTIVES:

No new activities of this Council have been identified. The main objective of the Council in the forthcoming year will be to continue to support and actively participate in those activities which have already been identified and are continuing programs. Again, the area which has been selected as being most vital to the Council is that of health planning. Due to the amount of controversial attention which has been drawn to the Health Systems Agency, it is the feeling of the Council that OSMA position should be to not get involved in the controversy. However, it is vitally important that OSMA continue to provide the best physicians possible to serve on the HSA's various councils, committees, and boards.

The two ad hoc committees presently in operation will continue to function until the completion of their tasks, at which time reports will be written and presented to the Board of Trustees and House of Delegates.

The Physician placement situation in Oklahoma is still very much up in the air and a problem that will have to be reckoned with in the very near future. The setting up and creation of a physician placement service and clearing house of information may have to be brought back into the programming and planning of the Association.

RECOMMENDATIONS:

1. That physician placement is still a very vital area in Oklahoma medicine and the Council should continue to strive to set up such a placement service within the structure of OSMA. Budget — \$2,000.00.

2. That the OSMA continue to provide the best physicians possible, to serve on the health planning boards, committees and councils.

3. That the Council continue to set up and support various socioeconomic programs such as office and personnel management. Budget — \$500.00.

4. That the Council be authorized to continue to work with and create committees which are necessary in better identifying problems dealing with medical services. Budget — \$500.00.

Respectfully submitted,
Tony G. Puckett, MD Chairman
Robert G. Perryman, MD
John A. Blaschke, MD
George M. Brown, Jr., MD
Donald L. Cooper, MD
Jack D. Fetzer, MD
Maurice C. Gephardt, MD
Roger V. Haglund, MD
Michael J. Haugh, MD
Robert R. Hillis, MD
Stanley R. McCampbell, MD
Stephen Parks, MD
Galen P. Robbins, MD

Special Report of the AD HOC COMMITTEE ON OBSOLETE MEDICAL PROCEDURES (APPROVED)

During a recent study conducted jointly between the National Association of Blue Shield Plans, the American College of Physicians and the American College of Radiologists, a

number of medical procedures, tests and treatments were identified as being considered scientifically or medically obsolete. The ultimate result of the study will be a list of medical procedures, tests and treatments, now obsolete which the Blues will no longer reimburse on a routine basis. The findings of the study were documented and Oklahoma Blue Shield asked that the Oklahoma State Medical Association review the list to either agree with or make changes so it can be approved for use in the state of Oklahoma.

The Committee, which was selected by OSMA President, Marvin K. Margo, MD, included Tony G. Puckett, MD, OB/GYN, Chairman; Ben Carter, MD, Radiologist; Galen Robbins, MD, Cardiologist and Rainey Williams, MD, Thoracic Surgeon. Also invited to participate in the deliberation of the Committee were Mr. Windom Hill and Mr. John Miller of Blue Cross-Blue Shield.

The Committee met on April 1, 1979 and reviewed several lists of tests and procedures which had been identified by the joint study. The Committee was in general agreement that the lists included outdated practices and procedures, with the exception of approximately six items which several of the physicians say they still see from time to time. The Committee made a formal recommendation that the Oklahoma State Medical Association be in agreement with the study conducted by the National Association of Blue Shield Plans, the American College of Physicians and the American College of Radiologists, and designate their findings as being out of date and obsolete. The Committee did attach one footnote to that recommendation, that the list be incomplete until Blue Cross-Blue Shield representatives can provide the Committee with actual correspondence from the American College of Physicians and the American College of Radiologists as to why those treatments which were identified as still being seen were included in the list. Once this information has been received by the Committee a conference call will be held and a decision made as to whether they should be included in the list.

The Committee was also informed that Blue Cross-Blue Shield plan to stop paying on a routine basis for the tests commonly known as "admission batteries" which are generally required by hospitals and not recommended by the admitting physician. Blue Cross and Blue Shield are basing their action upon a policy

statement which was passed by the American College of Physicians in April of 1978 which says, "The American College of Physicians recommends that no diagnostic tests including blood hemoglobin, urinalysis, biochemical blood-screen, chest X-ray and electrocardiogram should be required as routine procedures for patients admitted to the hospital."

After much discussion the Committee was in complete agreement that unnecessary, routine, diagnostic tests can be very expensive and drive up the cost of medical care. However, the Committee was also in agreement that this blanket statement is not the answer to the problem because it is not in the best interest of the patient and the ability to provide better patient care. The Committee was unanimous in its recommendation of the following statement: "The Oklahoma State Medical Association affirms the desirability of eliminating unnecessary routine studies as proposed in the statement of the American College of Physicians, but recommends continuing routine admissions, laboratory and test procedures when the hospital (medical community) can justify a necessity for cost effectiveness and specific patient populations for whom these tests or procedures are identified." The medical staff of the individual hospitals was identified as the group to be responsible for making the decisions as to whether the tests are cost effective and justifiable.

At the present time the Committee has not heard from Blue Cross-Blue Shield concerning the information pertaining to those procedures which were identified as questionable. Upon receipt of that information, the Committee will hold a conference call to conclude their work. Upon conclusion of their work, a formal report and recommendation will be forwarded to the Board of Trustees.

Special Report of the
AD HOC COMMITTEE ON
INDEPENDENT PRACTITIONERS
(APPROVED)

During the meeting of the Board of Trustees of August 5, 1978, the Trustees expressed their concern with the rapid and apparently uncontrolled increase of independent practitioners in the state of Oklahoma. In a motion from the Trustees, the question of an OSMA policy statement concerning independent practitioners was referred to the Council on Medical Services.

After several attempts by the Council to conceive a policy statement, an ad hoc committee was created at the direction of Marvin K. Margo, MD, President. C. S. Lewis, Jr., MD, Tulsa, was asked to chair this committee and he and Doctor Margo selected committee members on the basis of their connection with independent practitioners and experience in the field of education. Selected to serve on the committee with Doctor Lewis were the following individuals: William M. Leebron, MD, Elk City; LeRoy Carpenter, MD, Oklahoma City; Bill Hughes, MD, Oklahoma City; Don Karns, MD, Enid; Tom Lynn, Jr., MD, Oklahoma City; James A. Mulholland, MD, Tulsa; Harry Tate, MD, Oklahoma City; and Orange Welborn, MD, Ada. Mr. Bill Harkey, attorney for the State Board of Medical Examiners, was also asked to serve on the committee in an advisory capacity.

The committee held its first meeting in the fall of 1978, when they discussed the various avenues from which to approach this problem. It was finally a consensus of the committee that attention should be focused on the independent nurse practitioner. There was lengthy discussion concerning the Physician Assistant Program; however, it was agreed upon that the controls on PA's appear to be sufficient at this time. After some lengthy discussion concerning the avenues of approach toward the nurse practitioner problem, it was decided that a joint task force between OSMA and the appropriate nursing organizations might be the solution. Contact was made with the appropriate nursing leadership and they developed a committee to coincide with OSMA's committee.

On March 21, 1979, the OSMA-ONA Task Force on Independent Practitioners met for the first time. The meeting was co-chaired by Doctor Lewis and Mr. Aaron McCaskey, President, Oklahoma Nursing Association. The meeting was very structured and called for introductory remarks to acquaint all of the members with the various aspects of the Medical Practice Act — Rules and Regulations, The Nurse Practice Act — Rules and Regulations, Medical Education and Nursing Education. It was very apparent that this portion of the program was very well received by all members as it aided in the mutual understanding of what is involved in both areas of health care delivery. With the basic education process out of the way, it was decided that in order to more adequately discuss the collaboration of medical and nursing

functions it would be necessary to arrive at some major discussion points.

The group was asked to suggest some topics and those suggestions are as follows:

1. Professional relationships between nursing-medicine.
2. How to relate medical procedures to nurse education ? — Delegation of tasks.
3. Delineation of responsibilities — What is nursing, what is medicine?
4. Clinical privileges — Credentialing — Compensation
5. Quality Assurance — Peer Review
6. Definition of Supervision — Definition of Direct
7. RN feedback to MD on patient status
8. Standards of Practice
9. Defining terms

After an attempt at discussing some of the aforementioned points, it was decided that the co-chairmen and the staff personnel would come together again on a conference call to organize and delegate sub-committees made up of task force members to study each of the discussion topics for reporting during the next meeting. It was decided that the next meeting would be held on April 28, 1979.

A policy statement concerning independent nurse practitioners could easily be made by OSMA without conferring with the nurses; however, it was felt that the main objective is better patient care, and this goal could be enhanced by cooperative and collaborative efforts between doctors and nurses. It was the committee's feelings that perhaps a more objective statement might possibly come from a series of meetings dealing directly with the nursing profession.

Report of the
COUNCIL ON MEMBERS SERVICES
(APPROVED)

INTRODUCTION:

The Council on Members Services is responsible to the Association membership for a variety of programs that provide direct benefits as a reward for Association membership. These programs include endorsed insurance plans — life, casualty, and health; pension benefit plans; and travel programs. The Council is also responsible for membership recruitment, the underwriting and risk management control associated with the malpractice insurance pro-

gram, and liaison with the OSMA Auxiliary and medical school residents and students. The Association's Physicians Committee is under the jurisdiction of the Council.

REVIEW OF ACTIVITIES:

The following is a brief report on the areas for which the Council is responsible:

MALPRACTICE INSURANCE — The 1979 professional liability program is written through The Hartford Insurance Company. It continues to be one of the best programs in the nation and features limits for \$100,000 to \$5 million. Coverage is on an occurrence basis, and the Association has a contractual agreement with The Hartford for underwriting and risk management. Slightly over 3,000 physicians are enrolled in the program paying premiums of \$7.2 million. Enrollment is limited to OSMA members or special affiliates who agree to abide by the OSMA peer review procedures and conform to the underwriting and risk management plan. In addition to the malpractice coverage, there is an optional personal protection policy which has an enrollment of 997.

The 1979 malpractice insurance premium is approximately 32.6 percent higher than the 1978 premium. The premium increase was strongly protested by the Council and by the Board of Trustees. The company originally projected a premium increase of over 50 percent but reduced it to the 32.6 percent in view of the OSMA protest.

The Council has had under consideration and careful study the viability of creating an OSMA captive company. Resolution No. 2, which has the endorsement of the Council and the Board of Trustees, will provide standby authority to the Board for organizing such a company if negotiations with commercial carriers are unsuccessful or if premium projections differ significantly from OSMA actuarial studies. (See special Council report.)

The Underwriting and Risk Management Control Committee has had four meetings during the past year and reviewed the practice profiles of forty physicians. Policies have been restricted or coverage denied in a number of cases, which has resulted in appeals to the Board of Trustees on three different occasions. With one exception, the Board of Trustees has sustained the actions of the Committee.

The appeal process has proven to be very laborious and time-consuming for the Board of Trustees, and it has been suggested that a re-

vised protocol be adopted by the Board that would reduce the time for resolution of the appeal. The suggested protocol would permit about ten minutes for the presentation of the evidence by the Committee, about ten minutes for the rebuttal by the aggrieved physician, ten minutes for questions from the Board of both sides, and then five minutes for summation by both sides. This new procedure would require about forty minutes, or about half the time of previous appeals. Mr. Roy Lytle, OSMA legal counsel, has advised the Association that such a restricted protocol could be adopted without violating the due process provisions of the constitution and bylaws. It is anticipated, however, that the rules of procedure will be adopted for each individual case with the above stated protocol used as a guideline.

GROUP LIFE INSURANCE — Since 1956 the Association has sponsored a group life insurance program with the Massachusetts Mutual Life Insurance Company. Enrollment has decreased significantly in the past few years despite increased marketing and promotional activity. The managing agency, J. Hawley Wilson Agency, reports 201 physicians enrolled in the program in 1979 — a decrease over 1978. The average age of participants is 54, which indicates that the future of the group program is in jeopardy. Physicians have received major dividends during the past few years — slightly more than 20 percent. The 201 physicians enrolled are paying premiums of \$64,699.98 for a total coverage of \$5,833,520.

The Council has solicited alternatives to the current program and currently has under review a proposal which would provide coverage at premiums comparable to those now being paid but also would expand coverage for a number of other risks. A formal proposal from the company — Combined of Chicago — is forthcoming, and it is anticipated, based on the preliminary discussions, that the Council will discontinue its endorsement of the Massachusetts Mutual plan and recommend the new plan for 1979-80.

GROUP HEALTH AND MAJOR MEDICAL — The Council has surveyed the OSMA membership to determine the need for and willingness to participate in an Association-sponsored health plan. Only 25 percent of the OSMA membership responded to the survey, and the differing opinions of the respondents regarding comprehensive coverage and deductibles have made it difficult to design a policy that is com-

petitive with other programs now being offered by health insurers in the state. However, Blue Shield of Oklahoma has agreed to market a policy to Oklahoma physicians who indicate that coverage is unavailable. The proposed plan would have deductibles and coinsurance but would provide basic and major medical coverage.

DISABILITY INCOME — The disability income program is currently underwritten by the Commercial Insurance Company of New Jersey. Coverage and rates are competitive, and the company has received endorsements from approximately 30 state medical associations, which is a substantial benefit in itself since a physician moving from Oklahoma to another state has better than a 50-50 chance that his insurance program will be continued throughout and after the transition. Commercial has aggressively marketed the policy, and there are currently 430 doctors enrolled in the program.

OVERHEAD EXPENSE PROGRAM — This coverage is written through the Combined Insurance Company of Chicago. The company has conducted a major solicitation program, and enrollment has increased to 203 physicians.

OSMA PENSION PLAN — In 1976 the OSMA established a master retirement trust plan for physicians who wish to acquire any one of a variety of eligible pension plans. The J. Hawley Wilson Agency is the program manager, and investments are handled by the First National Bank & Trust Company of Oklahoma City, Oklahoma. Currently, there are 27 sponsored plans involving 39 physicians, with a total fund value of approximately \$761,156.93. Attachment A is a quarterly report from the First National Bank & Trust Company showing asset allocation, investment performance, and a summary of investment performance for the past three years.

TRAVEL PROGRAMS — During the past year the Association sponsored tours to London, Ixtapa, Africa, the Greek Isles, and the West Indies. A total of 149 physicians and their wives traveled on sponsored tours which provided approved educational courses. Companies selected to manage our travel programs pay all expenses of promotion and assume full financial responsibility for the entire tour. OSMA sponsors tours to secure travel discounts for its members.

RESIDENT AND STUDENT LIAISON — The Council, principally through staff, maintains a close relationship with residents and medical students. We provide advice and counsel to residents, assist in part-time employment, and encourage their participation in organized medicine. Annually, the Association helps finance a resident to the Student Residents Business Section of the AMA. In addition, the OSMA staff participates in programs designed specifically for residents in the socioeconomic areas of medicine. Resolution No. 3 would amend the Association's bylaws to permit students full membership privileges. Existing OSMA bylaws permit student membership but do not grant full voting privileges. The House of Delegates of the American Medical Association adopted a report seven years ago recommending that state societies extend full voting and membership privileges to medical students. It is the general feeling of the AMA House of Delegates that getting students involved in the federation at an early age promotes membership and better participation. There are approximately 675 medical students enrolled in the Oklahoma University Medical School program. At the present time over 200 are members of the AMA, and one is a member of OSMA. The AMA has agreed to refrain from direct solicitation of medical students if the OSMA bylaws are amended. If all the students that are members of the AMA were members of OSMA, our membership totals would exceed those necessary for an additional AMA delegate.

PHYSICIANS COMMITTEE — This special committee consults with doctors who have personal or professional, mental or physical, problems. There have been numerous confidential sessions with physicians who have unique problems throughout the year. The Committee's activities are confidential, and no records are kept of the meetings or interviews. Delegates and members of the Association who are aware of OSMA members who have problems should refer them to the Physicians Committee.

RECRUITMENT ACTIVITIES — The Association, in cooperation with the county medical societies, actively recruits non-member physicians practicing in Oklahoma. A letter with accompanying brochures detailing the activities of the Association and the benefits of

membership is mailed to each non-member shortly after the membership records are closed on March 31. The recruiting process continues throughout the year. OSMA is one of five states in the United States that has shown an increase in AMA membership (and, consequently, an increase in state membership) each year for the past six years. While progress in membership is obvious, there are still approximately 478 physicians in the state who are eligible but are not members of OSMA.

OTHER ACTIVITIES — The Council maintains a close working relationship with the Oklahoma State Board of Medical Examiners, periodically publishes a malpractice update newsletter, will conduct a series of risk management programs in 1979-80, and continues to support the activities of the OSMA Auxiliary. A new brochure, "Highlights of the Group Professional Liability Insurance Program," is in the process of being published and will be distributed in the near future.

OBJECTIVES:

The Council's basic objectives for 1979-80 will be to continue and improve the variety of programs under its jurisdiction. Maintenance of the malpractice insurance company by necessity is the Council's highest priority, and favorable action by the delegates on Resolution No. 2 will result in a substantial increase in the Council's activities. Several of the other programs — particularly our insurance programs — need review and modification. In order to continue this successful professional liability insurance program, the Council feels it is essential to undertake a series of risk management seminars, and it will continue to publish its malpractice update newsletter which brings timely insurance and legal information to the practicing physician. An important and principal objective of the Council, especially if Resolution No. 3 passes, will be to recruit student and resident members. Likewise, increased emphasis will be placed upon encouraging non-member physicians to join the Association.

RECOMMENDATIONS:

1. The House of Delegates continue to grant to the Council the authority to negotiate for and sponsor insurance programs for Association members;
2. The House of Delegates authorize the Council to continue its underwriting responsibilities and to conduct a series of risk management seminars throughout the state;

3. The House of Delegates authorize the Council to continue the sponsorship of travel programs;

4. The Council be authorized to continue its active membership recruitment program;

5. The Council be permitted to continue its support of Auxiliary, resident, and student activities;

6. The House of Delegates authorize the continued activities of the Physicians Committee.

Respectfully submitted,

C. Alton Brown, MD, Chairman

John A. McIntyre, MD

Elvin M. Amen, MD

Jack L. Berry, MD

David R. Brown, MD

Eugene Feild, MD

Thomas C. Glasscock, MD

Billy R. Goetzinger, MD

Joe Ray Hamill, MD

Robert Kahn, MD

Richard A. McKinne, MD

Robert A. McLauchlin, MD

Victor L. Robards, Jr., MD

C. E. Woodard, MD

Special Report of the
COUNCIL ON MEMBERS SERVICES
(APPROVED)

The purpose of this special report is to convey to the Board of Trustees and the House of Delegates a recommended course of action designed to strengthen the bargaining position of the Association in future premium rate negotiations with the insurance industry, or in the alternative, to create a new mechanism for providing comparable professional liability insurance protection whereby costs are more directly within OSMA control.

At the outset, it is important to observe that OSMA members have saved literally millions of dollars in premiums over the 27-year history of the Association's sponsored professional liability insurance program. This hallmark benefit of Association membership continues to be one of the most successful statewide insurance plans in the nation, and despite a significant (32.6) premium rate increase in 1979, the program is still a national forerunner in both quality of coverage and relatively low cost.

But the OSMA's relative superiority in the marketplace does not of itself mean that present professional liability insurance rates in Oklahoma are absolutely justified, or that our leadership position can be maintained in the

years ahead. Conditions within the insurance market are such that the normal forces of competition are, at best, dysfunctioning, or at worst, do not exist.

The Council on Members Services believes it is prudent to leave insurance matters to the commercial insurance industry, if possible; the first phase of the 1980 renewal effort will be directed toward soliciting bids on the insurance program from the six remaining major insurance companies which are considered to be viable sources for the needed protection.

Although our position in the orthodox insurance marketplace remains favorable as compared to other jurisdictions, the Council believes that the current costs of professional liability insurance are significantly high enough to justify action by the House of Delegates, that lays the necessary organizational groundwork and establishes appropriate guidelines to capitalize and create an OSMA-owned insurance company. Resolution No. 2 is an instrument to effectuate this final option on a standby basis, such option to be activated by the Board of Trustees only in event of an impasse in negotiating an acceptable premium rate structure for 1980.

This resolution, if approved by the House of Delegates, would provide on a timely basis the "permissive legislation" necessary to implement an assessment as early as January 1, 1980, for the purpose of providing the funds necessary to begin operation of an OSMA insurance company in accordance with the various steps and methods stipulated in the resolution. Timing of the assessment decision is critical to the order of events, because the OSMA Bylaws provide that assessments can only be voted by the House of Delegates at its annual meeting (*ie*, May of 1979 for collection in 1980).

Rate negotiations for 1980 with the current carrier, The Hartford, are scheduled by contract to begin on October 1, 1979. When the premium requirements of this company are known, they may be compared to bids and specifications received from other insurance companies, if any, and a determination can be made by the Council on Members Services and the Board of Trustees as to whether or not the best bid is sufficiently attractive to accept, or if it is in the best interests of the Association membership to activate the OSMA captive insurance company.

Calculations on the latter point are already

underway by C. L. Frates and Company, Inc., the OSMA's professional liability counselor for the past 12 years. There are already more than 20 physician-owned captive insurance companies in the United States which are successfully competing with the commercial insurance industry. The Frates agency has successfully formed and is managing two professional liability companies at the present time for other health-related associations.

While most of the captive companies have been formed to fill complete vacuums in the marketplace or to offset outright exploitation of their association members, it should be pointed out that the OSMA has not experienced either of these adversities to date. Although adequate competition for this type of insurance program seems to be lacking in Oklahoma, OSMA members are still viewed as desirable insureds, and premium disputes have been more a matter of honest disagreement than exploitation.

Nevertheless, it is incumbent upon the Association to develop the best possible bargaining position for renewal negotiations, and to authorize the funding authority contained in the resolution.

The permissive authority contained in the resolution can be utilized to gain a degree of independence from an unenthusiastic and perhaps fickle insurance marketplace. Although the assessment is projected as a three-year installment plan, a commitment has been obtained from a major Oklahoma City bank to secure a short-term loan sufficient to fund the company quickly. Necessary legal work and organizational decisions will be concluded in advance of a decision by the Board of Trustees to activate the company; should such a decision be deemed necessary in the light of developments, the company can be formed, funded, licensed, and placed in operation on short notice, approximately three months.

The resolution provides that the amount of the assessment is discretionary with the Board of Trustees up to a maximum of \$2,000 per member. If enacted and implemented to the limit, more than \$5,000 could be generated and, under state insurance laws, the company would be authorized to directly insure to the level of \$500,000 per claim. The latitude regarding the amount of assessment, as granted to the Board of Trustees in the resolution, is

recommended at this time because the cost and availability of reinsurance in order to provide even higher coverage limits cannot be absolutely determined until 30 to 60 days before the reinsurance is needed.

In addition to the capital that can be raised by assessment, the Association has in two separate insurance fund accounts approximately \$900,000 that *may* be used to start the new company. These monies cannot be returned to the Association members yet, but it appears that at least a portion of the money will be available in the foreseeable future.

The House of Delegates should, if it agrees with the Council and the Board of Trustees, grant the authority to the Board to determine the appropriate capitalization amount (up to \$5 million) necessary to organize a company of sufficient size to write limits of coverage that will provide necessary protection for OSMA members.

Once again, the Council's purpose in requesting support for the resolution is based foremost on its potential value in obtaining a satisfactory renewal arrangement within the traditional insurance market. However, if the difference between the premiums demanded by the insurance company and the premiums developed by OSMA-retained insurance counselors and actuaries is sufficiently large to begin the capitalization of the company, then the formulation of an OSMA company becomes a viable alternative. It is the opinion of the Council and the Association's insurance counselor that an Association company could remain competitive because of the large scale participation and financial strength of the Association and because of lower operating costs. Because of the favorable legal climate in Oklahoma and because of the Association's 27-year experience in the malpractice insurance business, it is anticipated that there would be no loss of managerial expertise.

QUESTIONS ABOUT FORMING AN OSMA INSURANCE COMPANY

Q. *WHY FORM A CAPTIVE COMPANY?*

A. (1) To save money; (2) To insure a quality insurance policy; (3) To guarantee good claims service; (4) To assure favorable treatment of individual physicians.

Q. *WILL IT WORK?*

A. Yes. It has already worked twice in Oklahoma (for hospitals and osteopaths) and in many other states, such as: Alabama, Arizona,

California, Florida, Illinois, Maryland, Michigan, Mississippi, Missouri, New Jersey, New Mexico, New York, North Carolina, Ohio, Pennsylvania, and Tennessee.

Q. WHAT WILL THE EFFECT BE ON INSURANCE COSTS?

A. The objective to forming a captive is to *control* costs. Ultimately, costs will decrease relative to the costs in the commercial insurance market. In the short term, however, costs will remain at a parity because the capital and surplus must be paid into a captive company in accordance with the insurance laws of the State of Oklahoma.

Q. WHAT ARE THE LEGAL FUNDING REQUIREMENTS?

A. A captive company must have \$1,000,000 in surplus for each \$100,000 of the risk it retains per occurrence, and it must have \$150,000 in capital.

Q. WILL NON-MEMBERS OF THE ASSOCIATION PAY THEIR FAIR SHARE OF START-UP COSTS?

A. *All* physicians participating in the benefits of a captive company will pay their fair share of the costs of organizing and funding the company.

Q. WHO WILL BE THE DEFENSE LAWYERS?

A. The defense attorneys will be those selected by the association who have defended physicians so successfully in the past.

Q. WHO WILL HANDLE CLAIMS?

A. The claimsman who so successfully managed claims for the Insurance Company of North America will supervise the claims activities of the captive, thereby assuring that good judgment and a sensitive, understanding approach will be preserved in this important area.

Q. WILL AN OSMA MEMBER BE GUARANTEED COVERAGE?

A. Underwriting must still be utilized, but coverage cannot be denied to any member of the OSMA in good standing if his peers choose to furnish coverage to him. All underwriting judgments will be made by physicians.

Q. WILL THE INDIVIDUAL ASSESSMENTS BE REFUNDABLE?

A. Your assessment may not be refundable, because if it were, the tax deductible advantages would be lost. *Remember*, it is not envisioned that a company will be formed *unless* the combined premium and assessment are comparable to the premium demanded by the

commercial market in the year the company is formed.

Q. ARE PREMIUMS AND ASSESSMENTS TAX DEDUCTIBLE?

A. As the company is currently envisioned, premiums and the assessment necessary to fund the company and to organize it are both tax deductible.

Q. WHO WILL OWN THE COMPANY?

A. All stock in the captive company will be owned by the association. In turn, the OSMA through its democratic processes will elect a Board of Directors, entirely composed of physicians, to manage the affairs of the insurance company by making all policy decisions of any importance to the company's operations. A physician-operated company will be responsive to the will and the needs of the OSMA membership.

Q. WHO WILL MANAGE THE COMPANY?

A. At this time, C. L. Frates and Company, the OSMA's insurance counselors for the past 12 years, have done extensive studies at the request of the OSMA Board of Trustees, and have made the preparations necessary to form and manage the company for the association. It is necessary that all arrangements be in order in advance, because there will be limited time in which to form the company, and it is important that there will be no lapse in coverage for any individual physician.

Q. WHAT WILL TRIGGER THE DECISION TO ACTIVATE THE COMPANY?

A. The Board of Trustees of the OSMA, acting on the recommendation of the Association's Council on Members Services and the insurance counselor, may decide that the commercial insurance market is asking for a premium that is so out of line as to be unreasonable, and that the captive company at this point becomes economically feasible.

Q. HOW LONG WILL IT TAKE TO FORM THE CAPTIVE?

A. Fortunately, since the OSMA Council on Members Services has worked with C. L. Frates and Company to make all the preliminary preparations, the formation of the captive company should require no more than a few months, and it will be possible within the parameters of the contract with the OSMA's present carrier to make the change so that there is no lapse of coverage for any physician.

Q. WHAT KIND OF INSURANCE POLICY WILL THE CAPTIVE COMPANY WRITE?

A. The broadest type of "occurrence type"

policy will be afforded. Physicians will be guaranteed that the highest quality insurance policy will continue to be available in Oklahoma.

Q. SHOULD A CAPTIVE COMPANY BE FORMED IN OKLAHOMA OR "OFF-SHORE"?

A. It is eminently desirable to form a captive under the laws of the State of Oklahoma because, by doing so, the cooperation of the Insurance Department is assured. The precarious nature of the political and regulatory environment, as well as the tax implications of an offshore company, make a foreign operation unattractive to the Oklahoma State Medical Association.

Q. WHO WILL DO THE UNDERWRITING AND CONDUCT INVESTIGATIONS?

A. The association currently has an underwriting committee that reviews all applications for insurance and conducts investigations when deemed necessary; it is anticipated the committee will continue to function.

Report of the
GRIEVANCE COMMITTEE
(APPROVED)

INTRODUCTION:

The Grievance Committee is a standing OSMA Committee organized for the purpose of resolving complaints against physicians brought by physicians, patients, committees of the Association or agencies, institutions or organizations that have cause to request Association assistance in adjudicating complaints.

The Committee has the responsibility of thoroughly investigating the complaint and making the decision as to the resolution of the matter or referral to the Association's Board of Trustees who, sitting as a judicial counsel, will act as the final appellate body of the Association. In the event referral to the Board is made, the Grievance Committee shall act as presenter of fact.

REVIEW OF ACTIVITIES:

Two years ago, the House of Delegates authorized enlargement of the Committee from the five immediate past presidents, adding two members to be appointed by the President. The Committee adopted a Rule of Procedure that requires the referral of complaints against physicians to the county medical society from which the complaint originated. The Commit-

tee requires that the complaint be heard at the county level within thirty (30) days.

Cases received by the Committee are registered in a special log that includes the following information: Date of receipt, physician's name, patient's name, origin of complaint, date of referral to county society, date reply is received and final disposition.

During the past year twenty-five (25) grievance cases have been received. These cases have been referred to the appropriate county medical society for resolution. There are three cases pending the next meeting of the State Grievance Committee.

OBJECTIVE:

The objective of the Committee is to mediate, in an expeditious manner, complaints against physicians. Hopefully, the resolution will be to the mutual satisfaction of the complainant and the physician thereby enhancing the Association's public and intra-profession relations. The Committee works with the State Board of Medical Examiners, other professional boards, eight (8) State and Federal agencies, hospitals and individuals in an effort to accomplish its objective. Specific grievances have been worked out with several of the above and others are being explored.

RECOMMENDATIONS:

1. That the logging procedure be continued for complaints filed;
2. That the method of referral to the involved county society be continued and adhere to the thirty (30) day requirement for the county society disposition and reply.
3. The Grievance Committee schedule quarterly meetings to adjudicate those cases that were unable to be resolved by the county societies.

Report of the Grievance Committee.

Respectfully Submitted:

Lucien M. Pascucci, MD, Chairman

C. Alton Brown, MD

Tony G. Puckett, MD

Stanley R. McCampbell, MD

Arnold G. Nelson, MD

Jack L. Richardson, MD

Orange M. Welborn, MD

Kenneth W. Whittington, MD

James V. Miller, MD

Report of the
PHYSICIANS CARE COMMITTEE
(APPROVED)

INTRODUCTION:

The Physicians Care Committee should

make itself available to counsel with physician members who are having personal, professional, mental or physical problems of a significant nature. Such counseling shall be unofficial and shall not be considered disciplinary. Physician members of the Association may request such counseling of this Committee, OSMA Council, another physician member or component society may offer to counsel with a physician member. Counseling sessions are to be considered privileged and no written record or minutes will be taken.

OBJECTIVES:

The Committee's main objective is to *find* the impaired physician and offer some type of help in order to restore him to a useful member within the profession and society. The Committee also has a purpose to educate all members of the profession as to the potential hazards present within the profession that can lead to many areas of personal neglect and ruin.

RECOMMENDATIONS:

1. The Committee shall explore new methods to make the medical profession aware of the purpose and availability of the OSMA Physician Care Committee.

2. The Committee shall continue to work with the State Board of Medical Examiners office for leads into possible physician abuses.

3. The Committee shall explore various opportunities to educate physicians and future physicians (medical school) as to early warning signs of problems.

Respectfully submitted,
Robert A. McLauchlin, MD, Chairman
Anthony M. Kowalski, MD
Ray V. McIntyre, MD
George A. Martin, MD
Thomas E. Rhea, MD
Joseph B. Ruffin, MD
John H. Smith, Jr., MD
Joe L. Spann, MD

Special Report of the
AD HOC COMMITTEE ON OSMA
ENDORSEMENT OF COMMERCIAL
VENTURES
(DISAPPROVED)

The OSMA Board of Trustees, as an obligation to the public and to its members, must occasionally take a stand on proposed products and services presented to it. On the other hand, the endorsement or approval of products and services involves some risk.

For purposes of discussion, these items can be divided into public service ventures and commercial ventures. Some examples of public service ventures would be: (1) polio vaccine program; (2) rubella vaccine program; and (3) Ipecac program. Examples of commercial ventures would be: (1) group travel; (2) CME programs; (3) malpractice insurance programs; and (4) collection agency programs.

It is the opinion of the Committee that the OSMA should not hesitate to endorse or approve products or services within certain guidelines. Endorsement should be reserved for products that have been thoroughly tested by OSMA or whose testing by other competent authority OSMA trusts and investigates, since endorsement implies some legal responsibility for results. In endorsing services, the OSMA or competent authority should be certain of the reliability, fiscal responsibility, and the acceptance of legal liability of the companies involved. Approval on the other hand implies the general acceptability without scientific study or legal liability for the products or services involved, and is a vehicle for simply making same available to the members of public.

The committee would suggest a highly structured mechanism for taking a position on certain issues. These include: (1) A Council on Products and Services should be established and given a rigid set of guidelines by the Board of Trustees; (2) All standing committees would be utilized as a first referral mechanism where appropriate, depending on the product or service (e.g. Council on Public and Mental Health Committee, Council on Medical Services, etc.), and their recommendation referred to the Council on Products and Services; and (3) Final action would rest with the Board of Trustees after study by the Council on Products and Services.

There would be several options open for the Council on Products and Services. These would include; (1) *No position* — Insufficient experience or data; (2) *Disapproval* — Experience and data indicate that the product or service offers no useful or beneficial improvement; (3) *Actively oppose* — Experience and data indicate that the product or service would be detrimental to the public good; (4) *Approval* — Serves useful purpose and is in the public interest; (5) *Endorsement* — Would contribute significantly to the public good; and (6) *Sponsorship* — We thought of it.

The OSMA should recognize the great com-

mercial value of its approval or endorsement of certain products and services, since it creates a built-in certain market of a highly concentrated area for effective sales. Many companies would be willing and could be encouraged to pay a percentage of profits to OSMA for approval, endorsement or simply making their products and services available to the members.

Due to our tax status and public relations position, this might ultimately be embarrassing to the OSMA. This embarrassment could be avoided by establishing a foundation to receive the funds and the foundation dedicated to education on health matters.

The committee recommends the establishment of a free-standing, incorporated, tax exempt, non-profit foundation known as the OSMA Institute with a Board of Governors appointed by the Board of Trustees which could issue the endorsements of approval, and receive funds as noted above.

Funds could be accumulated or disbursed with Board of Trustee approval for health education purposes for either public health education, or physician education (speakers for annual meeting, etc.).

In certain cases, approval or endorsement could come from the OSMA Institute rather than OSMA. Commercial companies who now buy our mailing list for a nominal sum could be encouraged to make a donation to the Institute in relation to the size of profits from the venture. This arrangement would not imply approval or endorsement by OSMA.

The establishment of the OSMA Institute could conceivably increase the maneuverability of OSMA in other ways as well.

Report of Reference Committee No. II

Mr. Speaker and Members of the House of Delegates, Reference Committee II has carefully considered the items which were referred to it and submits the following report:

ITEM I.

Report of the COUNCIL ON MEDICAL EDUCATION

Mr. Speaker, your Reference Committee closely examined the Report of the Council on Medical Education and discussed efforts to amend certification requirements so that organizations other than hospitals which are

conducting quality continuing medical education may more easily qualify.

It should be pointed out that the budget request for the Council on Medical Education is for \$3,500. The budget request for this Council listed in the proposed budget referred to Reference Committee No. III, however, is in error as it lists the request at \$2,000.

Mr. Speaker, your Reference Committee commends the activities of this Council and recommends approval of its report.

Mr. Speaker, I move adoption of this portion of the report.

ITEM II.

Report of the COUNCIL ON PROFESSIONAL AND PUBLIC RELATIONS

Mr. Speaker, your Reference Committee carefully examined the Report of the Council on Professional and Public Relations and wishes to commend the Council for its programs. In studying the Council's budget requirements, we found that a budget request for Item G on page 4 of the report had been left out. The Reference Committee was told that the budget request for this item was \$2,000, so page 4, line 23, of the report should read: *G. Educational Activities and Professional Dues – \$2,000*. It also was found that the budget request of this Council totals \$21,250, although the formal budget, which was referred to Reference Committee III indicated the budget request was \$25,000.

Mr. Speaker, your Reference Committee recommends that the Report of the Council on Professional and Public Relations be approved as amended.

Mr. Speaker, I move adoption of this portion of the report.

ITEM III.

Report of the COUNCIL ON PUBLIC AND MENTAL HEALTH

Mr. Speaker, your Reference Committee closely examined the Report of the Council on Public and Mental Health and wishes to commend it upon its activities. Your Committee was particularly interested in the Report of the Maternal Mortality Committee and formally requests that this information be publicized providing there are no legal problems. Your Reference Committee also reviewed the special report of the Council on Public and Mental Health and the budgetary requirements which are included with it. It was the feeling of the Reference Committee that it would be suitable

for the budgetary requirements outlined in the Special Report to be considered as a part of the budgetary requests of the Council on Public and Mental Health. Therefore, no amendments are suggested.

It should be pointed out, however, that again there is a discrepancy between the budget request of this Council and the proposed budget referred to Reference Committee III. The Council on Public and Mental Health requests a budget of \$3,250, which this Committee approves of. However the request listed in the proposed budget is \$2,500. The Reference Committee recommends that the Report of the Council on Public and Mental Health be approved.

Mr. Speaker, I move the adoption of this portion of the report.

ITEM IV.

Report of the

COUNCIL ON SCIENTIFIC ASSEMBLY

Mr. Speaker, no written report from the Council on Scientific Assembly was filed for review by Reference Committee II. The chairman of this Council, however, appeared and explained that the Council had been essentially non-active during the past year.

Mr. Speaker, your Reference Committee recommends that the Council on Scientific Assembly continue to study its role and ways in which it can aid the medical education program of OSMA. Although no report was filed before this Committee, we found that the proposed budget for 1979-80 included a budget of \$1,000, which this Reference Committee feels is reasonable. Therefore, your Reference Committee recommends that the activities of the Council on Scientific Assembly receive a budget of \$1,000 for 1979-80.

Mr. Speaker, I move adoption of this portion of the report.

ITEM V.

RESOLUTION NO. 3 — "RESIDENT MEMBERSHIP"

RESOLUTION NO. 13 — "STUDENT MEMBERSHIP"

Mr. Speaker, Reference Committee II spent considerable time discussing the merits of Resolutions 3 and 13, which were considered together. The majority of the testimony on these items was in opposition to these resolutions. Some constitutional questions were raised, and no one spoke in support of these resolutions. Therefore, your Reference Committee recommends that Resolution 3 not be approved.

Mr. Speaker, I move adoption of this portion of the report.

Your Reference Committee also recommends that Resolution 13 not be approved.

Mr. Speaker, I move adoption of this portion of the report.

ITEM VI.

RESOLUTION NO. 8 — "COST AWARENESS: PROVIDING A COPY OF THE PATIENT'S HOSPITAL BILL TO THE ATTENDING PHYSICIAN"

Mr. Speaker, your Reference Committee heard a great deal of testimony in favor of Resolution No. 8. It was felt that passage of this resolution would benefit efforts to control health care costs. Therefore, your Reference Committee urges the approval of Resolution No. 8 and implementation of this resolution providing legal counsel informs OSMA that there are no legal problems:

Mr. Speaker, I move adoption of this portion of the report.

ITEM VII.

LATE RESOLUTION NO. 12 — "MOBILE DRUG ABUSERS"

Mr. Speaker, your Reference Committee recognizes the problem addressed in Resolution No. 12 and fully supports its intent. Your Reference Committee therefore recommends approval of this resolution.

Mr. Speaker, I move adoption of this portion of the report.

ITEM VIII.

Report of the

MEDICAL HERITAGE COMMITTEE

Your Reference Committee reviewed the report filed by the Medical Heritage Committee and commends this committee on its activities during the past year. The Reference Committee was, however, concerned about a section of the report dealing with a project by which an OSMA member plans to commemorate the history of Oklahoma medicine. This project involves the production and distribution of belt buckles depicting pioneer physicians. In testimony before the Reference Committee it was learned that this project is currently in operation and it appears that OSMA does not have the authority to stop this project should it so desire. Therefore, your Reference Committee proposes the following amendment to this report:

Delete lines 24-26 on page 2 and lines 1-2 on page 3, and substitute the following: "*The Committee decided that the OSMA should not become involved in this project.*"

Mr. Speaker, this Reference Committee recommends approval of the Report of the Medical Heritage Committee as amended.

Mr. Speaker, I move adoption of this portion of the report.

Mr. Speaker, I move the adoption of this report as a whole.

Mr. Speaker, as Chairman of this Reference Committee, I would like to thank the Committee members and the staff for their cooperation and their work on this Committee report.

Ray V. McIntyre, MD, Chairman

Kenneth W. Whittington, MD

James D. Brashear, MD

Robert G. Perryman, MD

Larry Long, MD

Fred R. Martin, MD

Hall Ketchum, MD

Richard L. Hess, Staff

Judy Lake, Staff

Reference Committee No. II

Report of the

COUNCIL ON MEDICAL EDUCATION

(APPROVED)

INTRODUCTION:

The Council shall study and make recommendations related to all matters of maintaining or improving the level of medical competency in Oklahoma, including but not limited to maintaining liaison with medical education colleges in Oklahoma, to maintaining liaison with other health professions or occupations, to conducting continuing medical education courses for Association members, to the accreditation of medical education programs in Oklahoma. It will also monitor continuing medical education standards as they may be required by Association policy. Financial aid to education shall also be among the duties of the Council.

The Council on Medical Education and the entire Oklahoma State Medical Association lost a very dedicated worker and friend with the untimely death of Dr Frank H. McGregor, Chairman. Dr. McGregor was only Chairman of the Council for approximately six months before his death, but had helped make many strides in the development of the CME Program for the Association.

Dr William R. Smith, Enid, the Vice-Chairman of the Council and Chairman of the Survey Committee, was designated as Chair-

man of the Council by OSMA President, Dr Marvin K. Margo, and asked to complete the year in that capacity. Dr Smith acknowledged that he would accept the position of Chairman until May 1, but that he was quite satisfied with being a member of the Council and would have to decline any offer of chairmanship on a permanent basis.

REVIEW OF ACTIVITIES:

A. Survey of Institutions for Accreditation — Two more institutions were surveyed last year bringing the total to six institutions surveyed since the beginning of the program in the summer of 1977. Those institutions which have been surveyed and accredited by the Liaison Committee on Continuing Medical Education to produce Category I Continuing Medical Education are: Hillcrest Medical Center, Tulsa; St. John's Hospital, Tulsa; St. Anthony Hospital, Oklahoma City; South Community Hospital, Oklahoma City; and Baptist Medical Center, Oklahoma City. St. Francis Hospital, Tulsa, has been surveyed and their accreditation is pending final approval from the LCCME. The Council also received an application from a teleconference network system in Bartlesville, Oklahoma, named Medical Products Systems, Inc. After much deliberation over the appropriateness of their application, it was the Council's decision to proceed with the survey. The three-man survey team agreed unanimously that at the present time MPSI did not meet the guidelines which have been laid down by the LCCME. The Committee was also in unanimous agreement that the program of MPSI was of a very high quality but their planning process and medical direction did not conform to the guidelines laid down by the LCCME. They were informed that if they worked to improve and could show such improvement the Council would reconsider its recommendation of non-accreditation. The Council has also received inquiries for pre-survey information from four non-metropolitan hospitals but have not yet received an application or a request for survey.

B. Restructuring of Guidelines to Accommodate Special Groups and Small Hospitals — On several occasions this topic has been discussed by the Council and it was hoped that something could be done in this area. Since we are an extension of the LCCME and must follow their guidelines, this continues to be an almost impossible task. One suggestion and a possible solution would be for several small hospitals in

a particular area to combine their forces and strengths together to create a consortium, and attempt to meet and fulfill the requirements through that mechanism.

C. Liaison with the Department of Continuing Medical Education at the OU Health Sciences Center – For the past year the OU Health Sciences Center has been in search of a Continuing Education Director, and OSMA has had direct input into this process through one of the Committee members. After many months of screening potential candidates the field was narrowed to two very qualified candidates. Upon interviewing extensively both candidates, the Provost was informed that neither was interested because they felt the climate was not right for the program to move forward at this time. In place of a Director each college has been asked to work more closely with outside associations as well as with each other in an attempt to expand the Continuing Education Programs which presently exist.

D. Medical School Endowment – The goal of this program is to raise at least \$750,000.00 to endow a "Chair" for Continuing Medical Education in the University of Oklahoma College of Medicine. The plan calls for each OSMA member, on a voluntary basis, to contribute \$600.00 to the fund. This can be done at one time or through annual gifts of \$200.00 for three years. We have, for all practical purposes completed the dues collection for this year, and approximately \$39,600.00 has been contributed. The funds will be invested, and the earned income from the investment will be used to pay the salary of the Professor holding the chair position.

E. Medical School Admission Board – The Council continues to be a vital consulting resource in the selection process of Board members.

F. Financial Aid to Education – Financial aid has been an ongoing program which has included the allocation of \$5.00 of each member's dues to be utilized for scholarships to medical students. The desire to continue this program should be reviewed by the Council, because of the existing, state supported program of the Physician Manpower Training Commission.

G. Statewide Communication – With the Continuing Medical Education requirement deadline fast approaching, it is being brought to our attention that many physicians around the state still do not understand exactly what

the requirement entails. Therefore, due to the many individual requests which have been received, a letter was sent to each hospital's Chief of Staff informing him or her that we would send someone to speak to them during a hospital staff meeting or a county medical society meeting. Thus far, the response has been very good and several trips have been made to various parts of the State discussing the CME Program and its requirements.

H. CME Exemption Requests – The House of Delegates, in setting up the requirements for the mandatory CME Program, did not stipulate any automatic exemptions. It was the feeling of the Council and approved by the House of Delegates that any physician requesting an exemption should do so in writing to the Board of Trustees. After a process of screening and validating the requests each would be settled by action of the Board of Trustees on their own individual merits. Thus far, the Board of Trustees has adjudicated five exemption requests and in each case the Board has found that the individual is still in some type of patient contact; therefore, he should continue to work to meet the requirements.

It is anticipated that as time draws nearer to the deadline, more and more requests for exemption are going to be received. In the past there has been a problem with researching the individual requests. A sub-committee has been formed to study and develop a research tool which will provide more complete information to the Council and Board of Trustees and hopefully make their task of adjudication much easier.

The Council on Medical Education also recommends that the House of Delegates approve the following statement: "Any member will be automatically granted a probationary period of up to one year following the three-year CME requirement, if he has not yet received his PRA Award. During the probationary period, members shall be entitled to all rights and privileges of membership. Probation shall end automatically upon notification from the AMA that the physician in question has been granted the AMA PRA. The time of probation shall be included in the next three-year period of CME requirement."

OBJECTIVES:

The major project of the Council again this year, will be to continue to survey as many institutions throughout the state as possible. The Council understands the problem that

some physicians are experiencing in not having Category I CME credit available to them near their home towns. As was stated earlier, this constitutes a definite problem, because the accreditation of the small institutions is almost an impossible task under the present guidelines of the LCCME. However, the Council will continue to work with the guidelines, the possible formation of consortiums and the promotion of the already accredited institutions providing CME programs to the smaller hospitals.

A new project to be undertaken this year will be the re-surveying of three institutions which were accredited on a two-year provisional status in 1977. Those institutions include Hillcrest Medical Center, Tulsa; St Anthony Hospital, Oklahoma City; and Baptist Medical Center, Oklahoma City. If the re-survey proves that the institution has met the objectives of the provisional status, the institution will be given a four-year unconditional accreditation to produce and export Category I CME offerings. This should greatly enhance the ability to provide Category I CME offerings to smaller hospitals throughout the state.

We have already mentioned a current project of communicating the details of the CME requirement to the membership through county medical society and hospital staff meetings. Already, several institutions have requested that someone be available to speak to them in the near future and it is anticipated that this process will be repeated several times during the upcoming year.

Since the project of locating and hiring a Director of Continuing Education has been shelved for the present time, it will be imperative that OSMA continue its liaison and sharing policy with the Department of Continuing Medical Education. The Department of Continuing Medical Education at OU is another excellent method which needs to be utilized in order to provide proper and inexpensive CME credits for our membership throughout the State. This has been an ongoing program, and will continue in this fashion.

RECOMMENDATIONS:

1. That the Council continue to actively survey and re-survey institutions for accreditation. Budget — \$1,000.00

2. That the Council be available to and supportive of the Department of Continuing Medical Education at the OU Health Sciences

Center in their efforts of statewide medical education.

3. That the Council support and actively be involved in the ongoing programs of the Medical School Endowment and the Medical School Admissions Board Procedures.

4. That the Council continue to participate in hospital staff and county medical society meetings when requested. Budget — \$500.00

5. That the Council be allowed to send a representative(s) to County, State, and National meetings when appropriate. Budget — \$2,000.00

Respectfully submitted,
William R. Smith, MD, Chairman
Irwin H. Brown, MD
David E. Browning, Jr., MD
Ralph L. Buller, MD
Wallace Byrd, MD
Robert J. Capehart, MD
John W. Drake, MD
F. Daniel Duffy, MD
Bernard E. Guenther, MD
J. M. Guernsey, MD
Norman Haug, MD
Sam C. Jack, MD
Howard B. Keith, MD
James D. Loudon, MD
John M. Moore, MD
Solomon Papper, MD
Lowell N. Templer, MD
William G. Thurman, MD
Hal Vorse, MD
Kelly M. West, MD
Kenneth W. Whittington, MD

Report of the COUNCIL ON PROFESSIONAL AND PUBLIC RELATIONS (APPROVED AS AMENDED)

INTRODUCTION:

It is the goal of the Council on Professional and Public Relations to influence public opinion through two-way communications and thereby to improve the image of the medical profession. It is also this Council's goal to maintain and improve relationships with other professional organizations and to increase membership participation and thereby improve the Association's rapport with all physicians.

REVIEW OF ACTIVITIES

During the 1978-79 organizational year the Council on Professional and Public Relations coordinated a number of projects designed to

help bring about its ultimate goals. The Council continued to oversee production of the *Journal of the Oklahoma State Medical Association* as well as the internal newsletter . . . *OSMA News*. These two publications continue to be effective communications tools for the Association. *The Journal of the Oklahoma State Medical Association* is the current holder of the Sandoz Medical Journal Award and *OSMA News* has been recognized for its design. In order to meet the specialized requirements of OSMA, the Council has overseen production of a new specialized newsletter entitled Medical Cost Update. This newsletter will be published periodically, and its purpose is to make physicians aware of the problem of rising costs and to share with them possible solutions.

The Council also produced a new membership brochure entitled "Imagine Medicine Without a Medical Society." This brochure was mailed to all members and non-members and it points out the many things that OSMA does that individual physicians could not. Additionally, the Council cooperated in the production of a new brochure describing the OSMA medical school endowment program.

A principal project of the Council continues to be public service announcements which are aired without cost to the Association. At this point OSMA has produced four PSA's and has tagged two others with OSMA voice and video tags. The total amount of complimentary air time provided by the state's television stations now approaches \$200,000. For this reason the Council on Professional and Public Relations has presented each participating station with an OSMA service award.

Another principal project of the Association continues to be Medical Update series through which the Council places brochures on pertinent medical issues in physicians' waiting rooms across the state. One year ago the Council produced brochures on rising costs, the doctor/patient relationship and CPR. Due to the tremendous acceptance of these brochures, the Council decided to reprint each brochure rather than replacing them with new materials. The topics still appear to be pertinent, the brochures are still timely, and therefore the Council has decided not to update them at this time. As soon as the current supply is exhausted or if interest in these brochures seems to diminish, the Council will review the project

once again to see if new topics should be treated.

The Council on Professional and Public Relations has continued to work closely with the state's news media and with other professional organizations in an effort to tell medicine's story through as many mediums as possible. During the last year news stories in which OSMA cooperated have been presented with several awards.

Currently the Council is working on a documentary presentation which will identify the true reason medical care costs are rising. The plan is to have an Oklahoma-based television station finance and produce this documentary. Although the planning is in the preliminary stages, an Oklahoma City-based station has shown interest in the project.

For the assistance he has given OSMA in the past and for the overall cooperative atmosphere of KWTW, Mr. Jacques DeLier, general manager of KWTW, has been voted the recipient of the OSMA Medical Journalism Award. Mr. DeLier will receive a plaque, and a \$500 scholarship will be given in his name to the journalism school of his choice.

With both the administration and some senate leaders showing more and more interest in passing a national health insurance program, the Council has continued to gather material about NHI and to plan its strategy. The documentary film is one approach; additionally, the Council has ordered 75,000 copies of the article by former Secretary of the Treasury, William E. Simon. The article is entitled, "National Health Insurance: A Bitter Pill We Shouldn't Swallow." A dozen complimentary copies will be mailed to each physician member and additional ones will be available on order. They, like Medical Update, are designed to be used in waiting rooms, examining rooms and as statement stuffers.

OBJECTIVES:

In order to meet the objectives of the Council, a number of on-going and specific projects have been approved. The Council recommends continued publication of *The Journal of the Oklahoma State Medical Association*, continued publication of *OSMA News* and other specialized newsletters, and the production of other pamphlets and brochures as they become necessary. Additionally the Council recommends that even more emphasis be given to informational meetings with county medical societies and hospital staffs, and

further recommends that an appropriate audiovisual presentation be produced. The 1979 edition of the OSMA Medical Directory has just been completed, and the Council recommends that this publication continue to be produced under the supervision of the Council on Professional and Public Relations at two-year intervals.

The Council recognizes the broad definition of professional and public relations and its importance to the profession. It therefore recommends continued and increased activities in the areas of media relations, public relations and professional relations. Working as a news source for the media is one method of accomplishing this goal. Public service announcements and continuation of the Medical Update project is another. Strengthening of the OSMA speaker's bureau is yet another.

RECOMMENDATIONS:

Specific recommendations of the Council on Professional and Public Relations for the 1979-80 year plus budgetary requirements are as follows:

- A. Media Recognition Award—\$500
- B. News media relations and associated travel — \$750
- C. Production of additional Medical Update brochures — \$3,500
- D. Production and distribution of additional public service announcements — \$9,000
- E. Production of audiovisual presentation — \$1,500
- F. Contingency Fund — \$4,000
- G. Educational activities and professional dues — \$2,000
- H. Several years ago the Association developed a contingency fund in the neighborhood of \$40,000 designed to be used in counteracting the harmful utilization review regulations which were originally handed down by HEW. Due to changes in the law, it was not necessary to use this fund, and since that time it has been held in a savings account and earmarked to be used in a public relations/advertising program against passage of national health insurance. The Council recommends that this fund continue to be earmarked for this purpose.

Respectfully Submitted,
M. Joe Crosthwait, MD, Chairman
E. N. Lubin, MD, Vice-Chairman
Charles N. Atkins, MD

Eugene S. Bell, MD
John Bozalis, MD
James D. Funnell, MD
Homer D. Hardy, Jr., MD
H. Clark Hyde, Jr., MD
Linda Mae Johnson, MD
Larry L. Long, MD
Clifford L. Lorentzen, MD
Jack W. Parrish, MD
J. Randall Rauh, MD
Charles Green, MD
Rollie E. Rhodes, Jr., MD
Jack L. Richardson, MD
George R. Smith, MD
Marion C. Wagnon, MD

Report of the COUNCIL ON PUBLIC AND MENTAL HEALTH (APPROVED)

INTRODUCTION:

It is the goal of the Council on Public and Mental Health to provide the citizens of Oklahoma as well as OSMA members, timely information regarding the medical aspects of public and mental health and to conduct and oversee needed programs in these areas. It is also the goal of this Council to provide OSMA with effective leadership in these areas and to provide effective liaison to various organizations directly or indirectly involved in these activities.

REVIEW OF ACTIVITIES:

One of the major projects of the Council on Public and Mental Health has been statewide training in cardiopulmonary resuscitation. For the last year and a half this Council has cooperated with the American Heart Association in coordinating CPR training courses through county medical societies. Initial contacts were made with each county medical society in the state, and approximately 3/4 of these agreed to sponsor and coordinate CPR training courses in their area. A public service television announcement was produced to lend publicity to this effort, as were newspaper advertising slicks.

The Council would consider this project a success although the number of CPR training courses which have actually been held is far less than what was expected. In some cases the area served by the interested medical society had already held a number of such courses. In other cases it was difficult to coordinate courses through the county society, and in still other cases, Heart Association staff and/or

hardware was not available. At this point 8-10 actual courses have been conducted, although there are others planned. The Council intends to continue with this as long as there is an interest.

Another area which has required the Council's attention is health education. For years OSMA has encouraged public schools to provide a curriculum in health education but has met with opposition both at the legislature and among teachers. One reason for this was the lack of qualified health education instructors. For this reason the Council on Public and Mental Health surveyed OSMA membership last year and developed a list of over 200 physicians who were willing to help teach health education courses. This list of physicians was provided to the principals of each Oklahoma school as well as to the School Board. It is unsure at this point to what degree these physicians are being utilized, but the Council intends to follow up on this with a survey letter. Additionally the Council intends to make greater use of these physicians in the coming year, especially since health education is being given priority treatment by Oklahoma Health Systems Agency and other such organizations.

Many of the responsibilities of this Council are carried on by special subcommittees which fall under its jurisdiction. A report on these committees follows:

COMMITTEE ON ENVIRONMENTAL QUALITY — During the 1978-79 year the Committee on Environmental Quality directed most of its attention to an internal education process. This Committee is relatively new, having been appointed as a result of a resolution two years ago, and has spent a considerable amount of time determining what its role should be and how involved it should become in controversial environmental issues. During the past year educational programs have been conducted for Committee members, and a number of environmental problems have been discussed. These include air pollution, noise pollution, water pollution, disposal of radioactive materials, raw sewage disposal, use and disposal of petrochemicals, etc.

The Committee has identified two principal roles in which it can be of service to the membership and the public. First of all, an educational process will be carried out by the Committee for the members of the State Medical Association. This will be accomplished primarily through *The Journal of the Oklahoma State*

Medical Association and through special newsletters. Secondly, the Committee intends to speak out publicly on environmental issues which threaten the public's health or safety. The Committee plans to use discretion and good judgment in determining the issues to which we devote our attention. Since the Committee on Environmental Quality does not have research capabilities and the members are not for the most part trained in environmental issues, we will rely rather heavily upon other organizations such as the State Health Department, Environmental Protection Agency, etc.

The Committee expects to be increasingly active in the coming years.

PERINATAL TASK FORCE — The OSMA Perinatal Task Force met for the most part prior to the 1978-79 organizational year. A report of the Task Force was filed with the House of Delegates and was approved. At this point the Task Force has disbanded and has been reorganized into the Committee on Perinatal Health with both physician members as well as nurses, doctors of osteopathy, nutritionists, etc.

MATERNAL MORTALITY COMMITTEE — One of the most active OSMA committees is the Maternal Mortality Committee. Actually this Committee is established by Oklahoma statute, although OSMA is responsible for appointing most of its members. A representative of the State Health Department serves on the Committee, according to the statutes. The purpose of the Committee is to investigate maternal deaths, although recently its responsibilities have also included perinatal deaths. A special report of this Committee is shown below.

Report of the OKLAHOMA MATERNAL MORTALITY COMMITTEE

In review of maternal deaths certain notable concerns have been brought to the attention of the Oklahoma Maternal Mortality Committee. Several maternal deaths have occurred in home delivery settings with no professional assistance. In addition, a few home deliveries are being conducted by physicians in an environment which fails to provide modern day protection to the mother and child. Recent perinatal deaths occurring in out-of-hospital deliveries have been reported to the Committee.

There have been a remarkable number of preventable maternal deaths in which the patient or family was responsible. The responsi-

bility may be the result of the lack of information or the lack of motivation. It has been further noted that maternal deaths were frequently associated with obesity. A special concern is the fact that many maternal mortality reports from the attending physicians have not provided adequate information for a complete informed study by the Committee.

The Maternal Mortality Committee is a committee of the Oklahoma State Medical Association and an official representative of the Oklahoma State Health Department. Doctor Sara DePersio, Director of Maternal and Child Health Medical Services, serves on this Committee as the official member of the State Health Department. This Committee meets two times each year for the overall purpose of reviewing maternal deaths. The Committee attempts to determine the cause of death, whether the death is a direct or indirect obstetrical death, and whether the death was preventable or nonpreventable. If the death was preventable, the Committee attempts to determine responsibility; *ie*, the physician, the patient, the family, the institution, or otherwise.

This Committee, by law, has subpoena power to request the medical records for the purpose of reviewing maternal deaths. Due to the cooperation of our physicians, the Committee has not used the legal route in order to obtain the needed medical information. In cases in which information from the reporting physician is inadequate, a personal contact with the physician or hospital has assisted greatly in providing the information necessary for an informed study of the maternal death.

The maternal death rate in Oklahoma has decreased sharply since 1930 (Table 1). In 1930 one out of every 150 live births resulted in a maternal death compared to one maternal death in every 3,640 live births in 1976, a 1976 rate of 2.7 maternal deaths per 10,000 live births. Presently the Committee reviews an average of twelve maternal deaths per year.

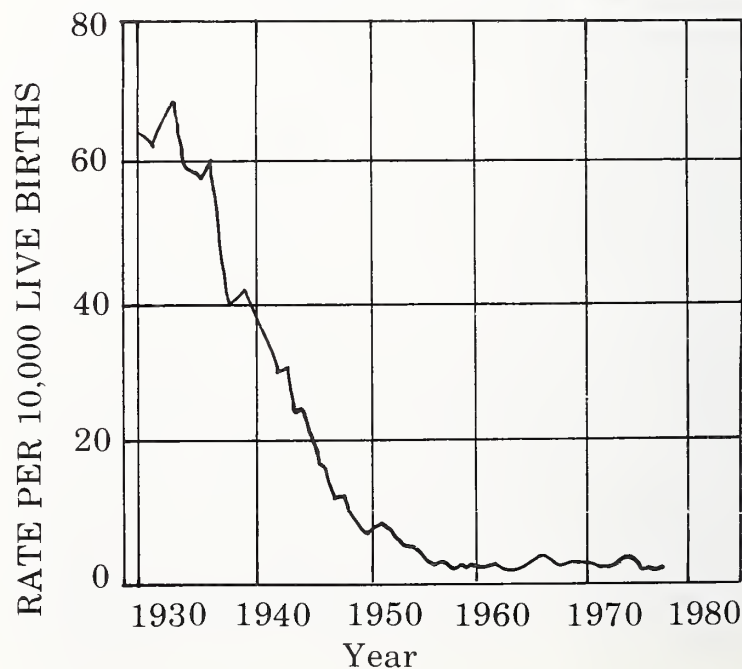
Doctor Neil Hoffman, Assistant Chief Medical Examiner, State of Oklahoma, Eastern Division, recently reported three perinatal mortalities for Committee review. These babies were delivered in the home and attended by nonprofessional individuals. The deaths were premature infants. At our meeting in April, 1978, the Committee met with Doctor Hoffman

and reviewed the deaths. It was the opinion of the Committee that two of the deaths were preventable.

In 1976 the perinatal mortality rate of Oklahoma for hospital deliveries was 20.5 per thousand deliveries. In home deliveries the death rate was 52.6 per thousand deliveries despite the fact that hospital deliveries include almost all known extremely high risk patients. We suspect that many home delivery perinatal deaths are unreported. These deaths occur in a wide spectrum of environments and care. Births in a home are frequently attended by untrained individuals without health professional licenses (40% in one state reporting). In addition, these deliveries occur in an environment without equipment to detect fetal distress and without the necessary facilities to save the child in distress.

A primary role of this Committee is to provide professional and public education. The final report on each maternal death is forwarded to the attending physician. This is one of the methods of providing professional education. A subcommittee on public education has been appointed. The purpose of this Committee is to provide and disseminate information to the public through the media in an attempt to reduce the maternal mortality rate. The maternal mortality rate in many states about the nation is now less than 2 per 10,000 deliveries. With constant surveillance of the maternal deaths and an ongoing professional and public education program, we hope to continue to reduce the maternal mortality rate in Oklahoma.

Table 1.
MATERNAL DEATH RATES
OKLAHOMA, 1930-1976



OBJECTIVES:

In order to meet the established goals of the Council on Public and Mental Health, the Council has approved and conducted several ongoing projects. The Council plans to continue conducting cardiopulmonary resuscitation training courses and hopes to step up activities in this area in the coming year. The Council does recognize, however, that since this program began a number of other organizations have become interested in CPR training, and the possibility exists that training personnel, facilities and training aids will be overtaxed.

The Council will emphasize during the coming year the expansion of health education activities in this state. Increased efforts to convince Oklahoma schools to utilize volunteer physicians in health education activities will be a priority of the Council. Additionally this Council shall work with others, particularly the Council on Professional and Public Relations, in devising methods of utilizing these volunteer physicians to the greatest degree possible. This list of physicians provides the nucleus for an effective speaker's bureau, as well as presenting other possibilities.

The Council also fully endorses and seeks support for the activities of the Committee on Environmental Quality and the Maternal Mortality Committee.

RECOMMENDATIONS:

The specific recommendations of the Council on Public and Mental Health for the year 1979-80 plus budgetary considerations are as follows:

- A. CPR training program — \$500
- B. Health Education activities — \$1,000
- C. Committee on Environmental Quality — \$1,000
- D. Maternal Mortality Committee — \$250
- E. Internal educational programs—\$500

Respectfully Submitted,

Armond H. Start, MD, Chairman

Chester L. Bynum, MD, Vice-Chairman

Charles E. Beck, MD

Robert C. Bowers, MD

Earl M. Bricker, Jr., MD

Hayden H. Donahue, MD

Delmar L. Gheen, MD

Mark R. Johnson, MD

Daniel F. Keller, MD

Mark A. Kelley, MD

Jerry R. Nida, MD

George W. Prothro, MD

C. E. Smith, Jr., MD

Adolph N. Vammen, MD

D. I. Wilkinson, MD

Special Report of the COUNCIL ON PUBLIC AND MENTAL HEALTH (APPROVED)

INTRODUCTION:

For at least the last decade, the Association and its House of Delegates has supported efforts encouraging the development of quality health education programs in the general population. The Council on Public and Mental Health officially endorsed a resolution in the state legislature that called for comprehensive health education in the public school system, Grades K-12.

For a variety of reasons the state school system has not implemented such a program and, in fact, teacher organizations have vociferously opposed any mandated curriculums including health education. The report of the Maternal Mortality Committee indicates that there are needless maternal deaths in Oklahoma, and our child pregnancy statistics support the theory that health education among young people is seriously lacking. The same is true in many other health areas — obesity, poor nutrition, alcohol and substance abuse, and poor physical activity habits.

The Oklahoma Health Systems Agency, acting as the catalyst, has brought together a large and prestigious group of people representing many organizations that have a sincere and dedicated interest in health education (see attached). The group plans to incorporate as the Oklahoma Health Education Advisory Council for the purpose of ". . . to promote health education statewide; make recommendations for the initiation of comprehensive school health education programs; encourage the development of higher education programs which will benefit health education in public schools; and provide leadership in the development and promotion of school, community, and patient education that will aid Oklahomans in the management of their own health resources." The specific objectives of the Council are:

(a) to implement a comprehensive health education program in Grades K-12 of the schools in Oklahoma;

(b) to implement a comprehensive patient health education program in Oklahoma;

(c) to implement comprehensive community health education programs in Oklahoma;

(d) to implement comprehensive health education programs in the higher education institutions in Oklahoma;

(e) to take any, all, and every action for which a non-profit corporation organized under the provisions of the State of Oklahoma for educational, benevolent, and scientific purposes can be authorized to take.

The Council has adopted a preliminary budget which seeks \$75,000 to \$100,000 in cash and in-kind contributions to support a two-person staff for one year. It has been recommended that the operating funds be raised by selling memberships in the organization. The following membership schedule will be recommended to the Council at its next meeting: Individual Memberships — \$10; Organizational Memberships — \$100 minimum; Corporate Memberships — \$250 minimum. It is anticipated that the existing and anticipated constituency will subscribe to at least one half or more of the proposed budget.

The in-kind contributions are to come in the form of printing services, research services, clerical assistance, postage, and rental space.

RECOMMENDATIONS:

It is requested that the Board of Trustees and the House of Delegates endorse the activities of the Oklahoma Health Education Advisory Council and consider membership in the organization.

Addendum Report of the COUNCIL ON PROFESSIONAL AND PUBLIC RELATIONS MEDICAL HERITAGE COMMITTEE (APPROVED AS AMENDED)

During the past organizational year the OSMA Medical Heritage Committee has continued its efforts to document the medical history of the Oklahoma State Medical Association. Additionally, it continued to work with other organizations and councils to provide relevant medical/historical information.

The Medical Heritage Committee has played a part in the formation of an American Medical Hall of Fame. This organization, which is being formed in St. Louis, will honor physicians throughout the country who played an important role in forming medical history. Oklahoma was invited to nominate three physicians for induction in this Hall of Fame, and the selection of these physicians was

turned over to the Medical Heritage Committee. Those selected are Benjamin Franklin Fortner (1848-1917). Dr Fortner moved to Indian Territory in 1872. He was elected president of the Indian Territory Medical Association in 1881, 1889 and 1890. He was the first president of the united Oklahoma State Medical Association.

Leroy Long (1869-1940). Dr Long was president of the Indian Territory Medical Association in 1900 and served as president of the Oklahoma State Medical Association in 1934. He was Dean and Professor of Surgery at the OU College of Medicine 1915-1930.

Lewis J. Moorman (1875-1954). Dr Moorman was president of the Oklahoma State Medical Association in 1919 and served as Editor of *The Journal of the Oklahoma State Medical Association* from 1942 to 1954. He was a Professor of Medicine and Dean of the OU College of Medicine and president of the American Tuberculosis Association.

The Medical Heritage Committee will continue to work with this organization in documenting the medical history of the state of Oklahoma.

The Committee also continued to work with the OU Health Sciences Center Library and the Stovall Museum and Western History Collections at the University of Oklahoma Library, Norman, in transferring historical files and artifacts of OSMA and the OSMA Auxiliary to Oklahoma City. Originally these items were donated to the Norman campus as space at the Medical School Library was limited. With the enlargement of this facility, the Medical Heritage Committee has requested permission from OSMA leadership as well as the leadership of the Auxiliary to move these items and display them at the Health Sciences Center Library.

The Committee also spent a great deal of time this past year discussing a project of an OSMA member to produce and distribute bronze and silver belt buckles commemorating Oklahoma's pioneer physicians. The Medical Heritage Committee learned of this project after it was well underway, and after several meetings with the physician sponsor, OSMA staff and leadership, the Committee voted unanimously to request that the project be discontinued. The main objection that the Committee raised was the similarity between the belt buckle and the OSMA brochure, "A Proud Heritage . . .". The buckle featured a horse

and buggy doctor similar to that used on this brochure, and the belt buckle also included the words, "A Proud Heritage . . .".

The Committee decided that the OSMA should not become involved in this project.

Respectfully Submitted,
R. Palmer Howard, MD, Chairman
Virginia E. Allen, Ph.D.
Herbert J. Forrest, MD
George H. Garrison, MD
Mark R. Johnson, MD
Robert C. Lawson, MD
Carson L. Oglesbee, MD
Robert G. Tompkins, MD
Kelly M. West, MD

Report of Reference Committee No. III

Mr. Speaker and Members of the House of Delegates, Reference Committee No. III has carefully considered the items which were referred to it and submits the following report:

ITEM I.

Report of THE BOARD OF TRUSTEES

Mr. Speaker, your reference committee reviewed carefully the actions of the Board of Trustees. It recognizes the many hours of deliberation these elected physicians served to conduct the business of the Association. Special commendations are extended to Doctor James B. Eskridge for the explicitly fine leadership he has shown over the last five years. *Your reference committee recommends approval of the Report.*

Mr. Speaker, I move adoption of this portion of the Report.

ITEM II.

Supplemental Report of THE BOARD OF TRUSTEES

Mr. Speaker, your reference committee recommends approval of the Supplemental Report of the Board of Trustees with the following budgetary comment. The Executive Committee has recommended and the Board of Trustees has agreed that the sum of money provided the President should be increased from \$1,000 to \$5,000 annually. The honorarium for the President of the Association has not been changed for more than ten years. This increase would not adequately compensate the President for the time that he was away from his medical practice, nor is that the intent of the honorarium, but it would help offset some expenses and seems more than justifiable. The change will decrease the estimated surplus in the OSMA

Budget for 1979-80 by \$4,000. *We recommend approval of this Report.*

Mr. Speaker, I move the adoption of this portion of the Report.

ITEM III.

Report of THE PRESIDENT

Mr. Speaker, your reference committee is aware of the diligent effort by Doctor Margo during his tenure as President of the Oklahoma State Medical Association. He has brought significant expertise and strong leadership to the Association, and the reference committee recommends that the profound appreciation of the entire Oklahoma State Medical Association be extended to Doctor Margo for his service to Oklahoma Medicine. *The reference committee recommends that Doctor Margo's comments be given wide circulation among the membership and be filed for future reference.*

Mr. Speaker, I move the adoption of this portion of the Report.

ITEM IV.

Report of THE PRESIDENT-ELECT

Mr. Speaker, the reference committee congratulates Doctor Leebron on his election as President of the Oklahoma State Medical Association and encourages the delegates and members of the Association to support his efforts in the coming year. *We recommend distribution of his report and that it be filed.*

Mr. Speaker, I move the adoption of this portion of the report.

ITEM V.

Report of THE TREASURER—REPORT OF THE AUDIT COMMITTEE

Mr. Speaker, since the Report of the Secretary-Treasurer and the Report of the Budget and Audit Committee both deal with OSMA fiscal affairs, your reference committee considered these reports together. There is some discrepancy between the 1979-80 budgeted council expenditures in the report of the secretary-treasurer when compared to the budgeted expenditures of the Council on Planning and Development. The Council on Professional and Public Relations expenditures as projected in the budget are \$3,500 less than projected in the secretary-treasurer prepared budget.

The budgeted expenditures of the Council on Public and Mental Health are actually \$1,500

more than what was stated in the secretary's report. Inasmuch as these discrepancies do not seriously affect the projected surplus for 1979-80, and since the budget is a guide for management and administrative purposes *we recommend the approval of this Report with the aforementioned notation.*

Mr. Speaker, I move the adoption of this portion of the Report.

ITEM VI.

Report of
THE COUNCIL ON PLANNING
AND DEVELOPMENT

Mr. Speaker, the reference committee would like to commend the Council on Planning and Development and call to the attention of the House the fine job that the Council has done under the leadership of Doctor C. S. Lewis, Jr. Inasmuch as the reference committee and House of Delegates consider each council report individually, and since the Council on Planning and Development Report is a summary of all other council reports *we recommend the report from the Council on Planning and Development be filed.*

Mr. Speaker, I move the adoption of this portion of the report.

ITEM VII.

Report of
THE CONSTITUTION AND
BYLAWS COMMITTEE

Mr. Speaker, the Report of the Constitution and Bylaws Committee makes no recommendation on resolutions pending before the House that would alter the Association's bylaws. These resolutions are considered individually by the reference committee and the House of Delegates. Therefore, *we recommend that the report of the Constitution and Bylaws Committee be filed.*

Mr. Speaker, I move the adoption of this portion of the report.

ITEM VIII.

RESOLUTION No. 4

Mr. Speaker, your reference committee considered Resolution No. 4 and recommends its approval.

Mr. Speaker, I move the adoption of this portion of the report.

ITEM IX.

RESOLUTION NO. 5

Mr. Speaker, your reference committee considered Resolution No. 5 and recommends its approval.

Mr. Speaker, I move the adoption of this portion of the report.

ITEM X.

RESOLUTION NO. 6

Mr. Speaker, your reference committee considered Resolution No. 6 and recommends its approval.

Mr. Speaker, I move the adoption of this portion of the report.

ITEM XI.

RESOLUTION NO. 9

Mr. Speaker, your reference committee has heard much testimony both pro and con, concerning compulsory American Medical Association membership. We understand the controversial nature of this subject and it is a recommendation of this committee that the officers and staff of the Oklahoma State Medical Association make every effort to convey to the entire membership, through the county medical societies and other means available the many advantages of unified membership. *The reference committee unanimously recommends that this resolution not be approved.*

Mr. Speaker, I move the adoption of this portion of the report.

ITEM XI.

RESOLUTION NO. 10

Mr. Speaker, Resolution No. 10 would change the Association's Bylaws to accomplish the intent of Resolution No. 9 since Resolution No. 9 has been rejected (approved) *we therefore recommend it (not) be approved.*

Mr. Speaker, I move the adoption of this portion of the report.

ITEM XII.

LATE RESOLUTION NO. 14

Mr. Speaker, Resolution No. 14 establishes the dues structure for membership in the Association. Your reference Committee after hearing testimony on the financial condition of the Association and reviewing the various council and committee reports does not feel it is necessary to alter the existing dues structure. *We therefore recommend that Resolution No. 14 be adopted as follows:*

Active Members — \$180.

Junior Members — \$10

Mr. Speaker, we recommend adoption of this portion of the Report. Mr. Speaker, I move adoption of this Report as a whole.

Mr. Speaker, as Chairman of this reference committee, I would like to thank the committee members and the staff for their cooperation and work on this committee Report.

Frank A. Clingan, MD, Chairman
Thurman Shuller, MD
Hillard E. Denyer, MD
H. Clark Hyde, MD
John T. Keown, Jr., MD
E. N. Lubin, MD
William E. Dalton, MD
David Bickham, OSMA Staff
Richard N. Ernest, OSMA Staff
Jeanette Saunders, OSMA Staff
Donna Clark, OSMA Staff

Reference Committee No. III

Report of THE PRESIDENT-ELECT (APPROVED)

INTRODUCTION:

Mr. Speaker, Doctor Nesbitt, Doctor Margo, Officers, Delegates, and Guests:

The founders and early organizers of this great Association deserve commendation. The procedures established in our Constitution and Bylaws for the selection and grooming of leadership showed remarkable foresight. As President-Elect this year, there has been an opportunity to witness first hand the many activities of the OSMA. The dedicated and unselfish manner in which you and many of your colleagues gave time, indeed most valuable time, to Association business, serving on councils, committees, and other decision-making bodies certainly is appreciated. As an understudy, I have participated with our leaders in serious deliberations on far-reaching problems that affect nearly every facet of medicine. We are very much indebted to them.

Time after time our President, Marvin Margo, demonstrated his capacity for leadership, his ability to get to the heart of the matter and exercise judgment in the resolution of problems that appropriately reflect the prevailing attitude of Oklahoma doctors. Most importantly he exercised judgments that protect our patients. Marvin Margo has been most modest while being an impeccable president. Will you please rise with me now and give Marvin the standing ovation he so richly deserves?

We are a beleaguered profession. We have been singled out as culprits. We have been told, and the public has been told, that we must be controlled. Members of President Carter's cabinet have recently stated that our "industry" is the single largest contributor to inflation. We have been accused of being wasteful and inefficient.

The Federal Trade Commission accuses us of restraint of trade, and of price fixing.

The Federal Election Commission charges us with unfair campaign practices.

Not only have we been attacked on multiple fronts from without, but we have had some serious problems from within. Recently several of our largest and most prestigious medical specialty societies filed suit against our parent organization. I was surprised to read that a recent Gallup Poll indicates that 51 percent of America's physicians favor national health insurance. Some of our younger colleagues have found it necessary to unionize in some areas.

Even in our own state, there has been a question of confidence in our organization's ability to care for the special interests of some of our members. On this basis, organized medicine may be a misnomer.

If I had but one wish for the future it would be to preserve the individual's right to select the physician of his choice and continue to give the patient the best possible medical care. This might well restore the 20 percentage points that physician prestige dropped in the past three years.

Our forefathers organized this Association to promote the science and art of medicine. Its purpose was to bind together the physicians in the Indian Territories so they could collectively respond to those problems that could not be solved individually. The purpose of this Association has never changed, only some of the problems. The necessity of solving them collectively is greater today than in 1906 simply because the problems are larger and more complex. This is not a time to abandon our county medical societies, our state association, or our specialty societies. Nor is it a time to abandon our national parent organization.

Our profession has achieved greater heights today than at any time in our history. We are better doctors. We have better facilities, better medicines, better skills and more knowledge with which to care for our patients. Our Association is stronger than it has ever been before. Our staff is experienced and competent. Our members are ready to work. Our recent letter requesting help from you resulted in more than 500 responses. This happily points in the direction of increased interest, participation, and unity of purpose.

All of us have the right as free men to follow our own pursuits. With freedom there is the responsibility, an obligation to preserve for

those who follow us the right to practice medicine in an environment comparable to that with which we have, the free enterprise system. Most importantly, we have the responsibility, the obligation, to preserve for the future patients of this country a medical system that has benefited the entire world.

We cannot fulfill those obligations and responsibilities divided. We cannot protect our individual interests and default on our commitment to patients. It would be to our advantage that we become a truly unified profession, because in unity there is strength, and a strong medical profession must be equal to the challenge we face today.

A call to unity should also be issued to our partners in patient care, to the private health industry, to the hospitals, and to all that have responsibilities for direct patient care. This challenge is not ours alone. We need the strength and the wisdom of our partners. We cannot afford the folly of fighting each other. No one part of the health care industry can be changed to a public utility without affecting the other parts. Today we are scrutinizing ourselves. I suggest that our partners do likewise, that we offer advice and counsel to each other, but that we isolate the common problems and that we solve them. We should be slow to point the finger of guilt and quick to aid one another.

We know we can be successful. The Voluntary Effort of Cost Containment has demonstrated that we can accomplish goals set for ourselves that are in the best interest of our patients and of the profession.

Let us reemphasize that we all must work for the common good of the patient. Therein lies our most faithful and strongest ally, the recipient of medical care. Nationwide we contact 2 million patients each day. In Oklahoma we contact 35,000, more than ten times the physician population. If each patient is convinced that it is in his best interests to preserve our present health care system, then, it can be preserved.

Report of the
PRESIDENT
(APPROVED)

Mr. Speaker, Doctor Leebron, Officers, Delegates, and distinguished guests:

As a citizen I have watched the presidency of this country age men overnight and send others to an early grave. As the outgoing pres-

ident of this Association, I now know exactly how they felt.

The past year has been a tremendous honor for me. I was honored to be chosen two years ago as your president-elect, and I benefited a great deal by serving with last year's president, Dr Burr Lewis. During the past 12 months, however, I have only for the first time realized what a tremendous responsibility the presidency of this Association is. I have also only now realized what an efficient, dedicated and well-trained organization we have working for us. The doctors I have called upon have on every occasion honored my request, and our staff has been of invaluable assistance to me. I wish to publicly thank each and every one of you who has done your part during the past 12 months to make certain that although I aged, I was not sent to an early grave.

You know the many, many hours which each of our council and committee chairmen contributes is a tremendous financial reward to this Association which goes virtually unrecognized. I wish also to thank every man and woman who served either as council and committee chairmen or as members, because your time is a resource without which this Association could not survive. If you would permit me, I would like to single out two individuals for special recognition. First of all, I want to thank Joe Crosthwait for the tremendous job he has done with our public relations program. The activities of the Oklahoma State Medical Association are recognized nationwide. and our PR program is being used as a model by a number of other states. I would also like to publicly thank Bill Hughes, who has done an outstanding job as chairman of our State Legislative Committee. Most of you probably don't know this, but during the legislative session Bill spends at least one morning a week at the State Capitol. On top of that he has spent many hours out of his office appearing before legislative committees and attending our own committee meetings. I think each of us can be thankful for Bill's efforts and those of our Legislative Committee.

Throughout the year at nearly every speaking engagement, I have told a not-so-true story about the time I was a luncheon speaker and returned to the car afterwards to meet Bobbie and asked, "Well, how did I do?" I, of course, felt that I had delivered a speech equaled only perhaps by the Gettysburg Address. Bobbie's

reply, however, was, "Fine. Except you missed several good opportunities to sit down."

That's been more or less my philosophy throughout the year, so I won't take a great deal of your time. I do, however, wish to very briefly touch on some of the many activities we have been involved in in the past year. It's only upon reflection that I realize what our medical association really does.

For example, on the night I was inaugurated as president, Jimmy Carter decided to attack the medical profession and the fact that medical associations tend to represent doctors. In fact, Mr. Carter wondered aloud whether or not medical associations should be allowed to exist. You know, I found that rather curious. Labor unions represent laborers, bar associations represent attorneys, the Association of Certified Public Accountants represents accountants, and yet somehow Mr Carter couldn't understand why medical associations would represent doctors. This more or less set the tenor for the coming 12 months. Before I knew it, we, as physicians, had been challenged to do something about the rising cost of medical care, so we formed the Voluntary Effort. Then before the Voluntary Effort could really get going, HEW, our major critic, declared the Voluntary Effort unworkable and tried to have it declared in violation of anti-trust laws. We also heard that physicians' fees vary too much and that the California Relative Value Scales are price-fixing mechanisms. Soon afterward we learned that there was altogether too much unnecessary surgery being performed and that new technology which would prevent this was too expensive.

The next thing we knew, we were involved in the second opinion program, and I must say our federal friends were a great help in setting this up. They decided it would be a great idea for medical associations to assist patients who were scheduled for surgery but who wanted a second opinion. They were amazed when we told them that we had been doing just that for years and years and years. One last item to add to this potpourri is the Federal Trade Commission's position on professional advertising. As most of you know, the FTC has now decided that advertising by doctors would drive down the cost of medical care, while advertising by pharmaceutical companies drives up the cost of medications. What you might not know is that the Federal Trade Commission has also decided that while doctors should advertise,

associations of doctors should not. Where it will all end, no one knows. But Doctor Leebron, let me say that I am happy to leave these problems in your very capable hands.

Before all of you get the idea that last year was a year of only problems and no solutions, let me briefly mention some of the things I think all of us can be proud of. First and foremost may very well be the reversal of the American Medical Association's stand on health insurance. As you know, Oklahoma, along with a few other states, has championed the fight against national health insurance. Until this year we were met by an unsympathetic AMA House of Delegates. However, in December the AMA House of Delegates reversed itself by a 160-86 vote and decided not to introduce NHI legislation into the Congress. I think Oklahoma can be particularly proud that we have never altered our position and that we remained steadfast even when our position was unpopular.

I think we can also be proud that Oklahoma, through its persistent efforts, has apparently now convinced some of the AMA leadership that the Key Man lobbying concept is valid. In past years we have taken resolutions to the AMA calling for other states to adopt Key Man programs, and on nearly every occasion we have been rebuffed. In December, however, a favorable report was written, and I believe this can be attributed both to our persistence and to the success of our Man in Washington program. As you know, for the past two years OSMA has retained a Washington-based lobbyist. To my knowledge no other state has such a program, and to my knowledge no other state enjoys as good a relationship with its Congressional delegation. We can be proud of OMPAC which contributed to 30 races last year and was a winner in 28 of those. We can be particularly proud that an Oklahoma physician, Dr C. H. Williams, was chosen to appear before the prestigious Senate Finance Committee. Dr Williams did an excellent job explaining how Medicare and Medicaid amendments would affect Oklahoma doctors and hospitals.

Not only can we be proud of the public relations program we have developed at the state level, but I would also like to point out some of our efforts which have national importance. For the last three or four years the Oklahoma delegation has taken resolutions to the AMA calling for that body to develop an aggressive public relations and advertising program pro-

moting the American health care system. At first no one listened. The second year we had one or two supporters, but our resolution was overwhelmingly defeated. The third year was a stand-off, and in the fourth year the AMA doubled its public affairs budget and began purchasing advertisements in national magazines. This is just one more example of how our Association has helped determine the direction of American medicine.

Still another project that we can be proud of is the Oklahoma Utilization Review System, which has even received the praise of HEW Secretary Joseph Califano. When federal bureaucrats doubted if the program could work at all, we here in Oklahoma demonstrated to them an effective way in which to monitor hospital admissions without the burdensome regulations of a federally-devised program. In fact, in its first year, OURS saved the taxpayers of this state somewhere in the neighborhood of \$16 million.

Our last item is our *Journal*, which I would like to recognize once again. Last year for the first time we entered the Sandoz Medical Journal Contest and were awarded with the national first place prize. I think this is a tribute both to our editor, Dr Mark R. Johnson, and the many physicians around the state who have submitted scientific articles for publication. It is also a tribute to each and every member of this Association who has been willing to support this publication and to assure that it remains both a quality journal and an image piece for our Association.

I believe we have come a long way in the past 12 months, but I also recognize that we have a long way to go. Doctor Leebron, I can offer you little advice except to remind you that a million dollars is a stack of thousand dollar bills two-and-one-half inches high. A billion dollars is a stack of thousand dollar bills more than two-hundred feet high. Today, the federal budget is approximately five hundred billion dollars, or a stack of one thousand dollar bills nineteen miles high.

Thirty years ago inventor and industrialist Charles F. Kettering observed, "One of the things we have to be thankful for is that we don't get as much government as we pay for."

Let us all give thanks.

Report of the BOARD OF TRUSTEES (APPROVED)

INTRODUCTION:

The Board of Trustees has completed three of its quarterly meetings for this organizational year, the fourth being held this morning; the proceedings of the May 3rd meeting will be covered in the Supplemental Report of the Board of Trustees.

Attendance at Board meetings since last May has been sporadic, though generally good. However, at the August meeting, though a quorum was certified, several Trustee Districts lacked any representative and other Districts were under-represented and/or partially represented by an observer without credentials. At the February meeting, one District sent a representative neither duly elected by the House as either Trustee or Alternate Trustee nor properly appointed to fill an unexpired term of an Alternate. In both instances, the representatives without credentials were allowed the privilege of discussion but not allowed to vote.

JUDICIAL AUTHORITY:

The Board acted in its judicial capacity, as provided in Section 7.03 of the Bylaws, on two occasions, both pertaining to appeals of physicians to unfavorable rulings of the Underwriting and Risk Management Control Committee regarding professional liability insurance coverage.

In August, the appeal of Dr Charles D. Taylor was narrowly sustained and referred back to the Committee for reconsideration according to the Underwriting Plan. In February, the appeal of Dr Thomas M. Prescott was denied, and other sources of professional liability coverage advised.

ACHIEVEMENTS OF THE COUNCILS:

The Board has selectively approved the recommendations of the Council on Planning and Development, based on reports from the Association's seven operating councils, in October, and anticipates favorable action on the majority of the Annual Program of Activities presented by the Planning Council to the Board at its May 3rd meeting.

Details of individual Council achievements and recommendations will largely be omitted from this Report. Suffice to say, the Board has been pleased with the effectiveness of the Council system, ably staffed by the Association's directors. Negative reactions of

the Board have occurred on a few occasions, such as a recommendation by Medical Education of a trial period of computer recording regarding of CME credits and another, by Medical Services, pertaining to Association endorsement of a specific collection agency.

The Board has acted with favor on such Council-recommended situations as choice and acceptance of the current professional liability carrier; the Board supports a resolution to this House setting stand-by authority to form an OSMA captive insurance company. The Board affirmed the wisdom of an underwriting surcharge to non-OSMA members participating in OSMA's program, increasing such surcharge to \$450 per year.

The Board has agreed with Council recommendations concerning exemption from CME requirements on several occasions, denying four requests for exemption; the Council on Medical Education was urged to further define and refine its study of exemption requests.

LIAISON WITH THE AMERICAN MEDICAL ASSOCIATION:

During the August Board meeting, a comprehensive report was received from AMA Delegates concerning pertinent activities at the Annual Meeting of AMA in St Louis as well as OSMA's activity in promotion of the concept of State Medical Washington representatives, positive participation in the Voluntary Effort and broadening of our caucus position.

The Board learned of the appointment of M. Joe Crosthwait, MD, Midwest City, to fill the unexpired portion of Dr Scott Hendren's term as Delegate (Position II), and the appointment of J. B. Eskridge, III, MD, Oklahoma City, to fill the unexpired portion of Dr Crosthwait's term as Alternate Delegate, Position I (which expires at this Annual Meeting). Dr Crosthwait now serves as Delegate, Position II, by virtue of his election to that position by the 1978 OSMA House of Delegates.

The Board strengthened its commitment to the Voluntary Effort by adoption of a resolution, in October, requesting physicians to exercise restraint in the amount of fee increases, as emphasized by Dr Tom Nesbitt, AMA President, in his stirring Inaugural Address.

In August, the AMA commended this Association for again increasing its membership in 1978. Trustees were encouraged to exert all practical efforts to surpass the 3,000 membership mark prior to January 1, 1979, so that application could be made for a fourth AMA

Delegate and Alternate Delegate. Despite the apparent attainment of that goal, OSMA has been denied another Delegate seat because of inclusion of student Direct Members of AMA who actually do not belong to OSMA. Correspondence received by the Chairman from Dr Sammons has substantiated same.

In February, AMA Delegates and Alternates, again, reported on the deliberations and conclusions of the Interim (December) Meeting of AMA, in Chicago, featuring the controversial chiropractic issue and the overturning of the AMA Board's proposal for comprehensive national health insurance. In the latter issue, OSMA's Delegation stood clearly behind those supporting Resolution 62 and its limit of four principles.

Trustees have instigated the nominations of Dr Ed Calhoon, Beaver, to the AMA Council on Legislation (Dr Calhoon has subsequently been so appointed), of Dr Jack Nettles, Tulsa, to the AMA Council on Medical Education, and supports Dr Don Cooper, Stillwater, for reelection to the AMA Council on Scientific Affairs.

OKLAHOMA FOUNDATION FOR PEER REVIEW:

A lease-rental agreement between the Association and OFPR has been approved by the Board for OFPR occupancy of the headquarters building addition. The Board has monitored necessary revisions to the expansion project, the process of rebidding and subsequent awarding of a contract and financing. The headquarters expansion is now nearing completion.

The Board has learned, with interest, of the results of the GAO audit of OFPR and has generally been pleased with the results of the Foundation's efforts, as reflected in this audit.

EXECUTIVE COMMITTEE:

The Board has received and approved Executive Committee reports at each meeting. Workman's Compensation Workshops, active participation in Voluntary Effort planning and promotion, and monitoring of an insurance company's possible interest in establishing an HMO in the Central Oklahoma area were detailed to the Board in August. In October, a Task Force on Joint Practice was formed, and results of a personnel review and purchase of certain headquarters equipment were presented. In February, the Executive Committee requested favorable Board action regarding disapproval of the Oklahoma Health Planning

Commission moratorium against Tulsa area hospitals CON requests, recommended financial assistance to AMSA representatives, and asked for nominee suggestions for the OFPR Board.

Specific authorization for communication was provided by the Board concerning erroneous bylaws changes by a component society; specifically, a withdrawal of the component society from unified AMA membership.

The Board has been kept abreast of the financial status of the Association at each meeting.

POSITIONS ADOPTED:

The following positions, here presented in order of their adoption, have been established.

. . . a resolution to the Oklahoma State Legislature calling for the Legislature to exert all efforts for a balanced Federal budget.

. . . a resolution condemning unwarranted intrusion by third parties upon the practice of medicine, specifically mandatory second opinion programs and manipulation/fragmentation of prescription medications.

. . . affirmation of the previously established Board position opposing any form of National Health Insurance, referring the principles of any future proposed AMA plan to the Council on Governmental Activities for review and recommendations (all in August).

. . . recognizing the large numbers of Medicaid patients seen by physicians, the low fees established by law, and that some physicians are unable to participate in the program for these reasons.

. . . support the concept of the due process for any physician, regarding as treacherous any situation arising in which physicians lose the ability to have input in what governs them and what they are allowed to do professionally.

. . . a resolution requesting physicians to exercise restraint in the amount of fee increases, emphasizing physicians' concern for the success of the Voluntary Effort.

. . . a desire that there be consideration by the House of Delegates of AMA of any future changes of either the Principles of Medical Ethics or Judicial Council Opinions (all in October).

. . . asking the Oklahoma Health Planning Commission to rescind its order of January 27, 1979, and act on applications for Certificate of Need according to individual merit: endorse

the position of the Tulsa County Medical Society and authorize our President to so state to the public of Oklahoma.

. . . endorse the intent and concept of a resolution pertaining to stand-by authority to form a captive insurance company.

. . . endorse the concept of direct billing for physicians' services; encourage all third party payors to work vigorously toward a smooth transition from current compensation methods to a direct billing concept for all physicians who desire same.

. . . oppose (recognition of) unsupervised physician extenders.

. . . no involvement in attempting to determine what degrees should be granted at the University of Oklahoma School of Medicine.

NOMINATIONS AND APPOINTMENTS:

As previously stated, the Board has submitted certain nominees for positions on AMA Councils. In addition, Dr Hayden Donahue, Norman, was nominated for the Benjamin Rush Award of AMA and Mr. W. K. Warren, Tulsa, for Citation of a Layman for Distinguished Service Award, subsequently chosen to be honored by AMA. No nominations were heard for the AMA Goldberger Award.

The Board approved submitted panels for the OMPAC Board of Directors and the College of Medicine Board of Admissions. Nominees were provided to the Oklahoma Foundation for Peer Review for two at-large positions and positions 5 and 6 of the OFPR Board of Trustees.

AWARDS AND EXPRESSIONS OF SUPPORT:

The Board of Trustees has chosen Dr Hayden H. Donahue, Norman, for the 1979 A. H. Robins Award, and Mr. Roy Lytle, Oklahoma City, to receive the Outstanding Layman Award.

At the October meeting, Mr. John Montgomery, OSMA "Man in Washington," received commendation for his work in behalf of the Association and an expression of support.

Terrald Jay Smith, Oklahoma City, a 4th year medical student, will be the recipient of the Billy M. C. Shipley Rural Health Scholarship Award of the University of Oklahoma Health Sciences Center.

A request for support by the Oklahoma Optometric Association in their lawsuit against Montgomery Ward was denied.

DUES AND DONATIONS:

In February, a request from the Oklahoma Chapter of the American Medical Student As-

sociation for assistance toward representatives of AMSA attending their national meeting in Denver was granted in the amount of \$1,000.

A contribution to the American Association of Medical Society Executives (AAMSE) of \$500 per year, for three years, was granted.

ANNUAL MEETING, 1980:

The Board of Trustees has selected the dates of Thursday, May 8 through Saturday, May 10, 1980, as the dates for the 1980 Annual Meeting of OSMA, to be held at Lincoln Plaza Inn in Oklahoma City.

LIFE MEMBERSHIPS AWARDED:

The following physicians have been awarded life membership in the Association through application from component societies and with approval of the Board.

In August

Washington-Nowata County: Albert M. Mery, MD, Bartlesville

Kingfisher County: Frank C. Lattimore, MD, Kingfisher

Oklahoma County: Gilbert L. Hyroop, MD, Oklahoma City

In October

Oklahoma County: J. Floyd Moorman, MD; Richard L. Harris, MD; James P. Dewar, MD; and W. W. Sanger, MD

Carter-Love-Marshall County: Joseph S. Raff, MD, Madill

In February

Canadian County: Alpha L. Johnson, MD, El Reno

Choctaw-Pushmataha County: Floyd L. Waters, MD, Hugo

East Central Counties: Gladys Smith, MD, Muskogee

Grady County: Richard Giles Stoll, MD, Chickasha

Northwest Counties: M. H. Newman, MD, Shattuck

Tulsa County: Lucien M. Pascucci, MD; Edward L. Moore, MD; Charles G. Stuard, MD; William C. Pratt, MD; and Theodore S. Williams, MD

AFFILIATE MEMBERSHIP ELECTION:

In August, the Board of Trustees elected Robert W. Hard, MD, and Alfredo Aucar, MD, both of Ponca City, to Affiliate Membership with the stipulation of full dues payment.

DUES-EXEMPTION GRANT:

A dues-exemption petition, received in August from Tulsa County Medical Society in behalf of F. Eliska Atkins, MD, Tulsa, was approved by the Board.

MISCELLANEOUS:

Dr Marvin K. Margo, Dr William M. Leeb-ron and Dr Armond Start were appointed to the Ad Hoc Committee on Appropriations and Auditing.

In August, the Board received a report from the Mental Health Task Force concerning their investigation of charges involving physicians at Central State Hospital, finding no fault of the physicians accused. Members of this Task Force were awarded Certificates of Achievement. During this meeting, a lively discussion of the Billings Nurse Practitioner Satellite Clinic prompted the Board's adoption of its position, previously stated, and the formation of the Ad Hoc Committee on Independent Practitioners, from which an interim report was received in February.

Another Ad Hoc Committee, on the Endorsement of Commercial Ventures, was formed to assess OSMA's possible future involvement in such requests as were presented in October concerning endorsement of a collection service. The Board, in February, received the Committee's report and referred it to the Council on Planning and Development for study and to the Constitution and Bylaws Committee for preparation of proposed bylaws changes.

At several meetings the Board received information concerning the assertions of the Federal Trade Commission concerning physician advertising, choosing to continue to allow each county medical society to exercise its own judgment, and to maintain OSMA's Peer Review activities unchanged.

The Board was pleased to acknowledge, in August, the successful fulfillment of scholarship obligations of Dr John Goff, Miami, under the Rural Medical Scholarship Program of the Oklahoma Community Care Foundation.

The Board referred the cause of Doctors Noel and Bonnie Miller in the case "Drs Miller versus Seran et al" to the legal department of the AMA, developed the position regarding due process for physicians previously stated and, later, joined AMA in an amicus curiae brief.

The Board: granted authority for Staff to develop "some type of tour arrangements" for the AMA Interim Meeting in Hawaii late in 1979; approved continuation of the medical-legal program conducted by Mr. Ed Kelsay as part of OSMA's official medical education program; requested comments from Trustees in February concerning the summary of the Okla-

homa Health Systems Agency's Health System Plan for Oklahoma.

Supplemental Report of the
BOARD OF TRUSTEES
(APPROVED AS AMENDED)

The Annual Meeting of the Board of Trustees convened at 11:05 a.m., May 3, 1979. The following major actions were accomplished.

I. ELECTION OF OFFICERS:

Elvin M. Amen, MD, Bartlesville, was elected Chairman, and J. B. Eskridge, III, MD, Oklahoma City, was elected Vice-Chairman of the Board.

II. EXECUTIVE COMMITTEE:

The Board received a report from the Executive Committee, approving the following actions and recommendations:

The Executive Committee elected to increase the sum of money provided the President from \$1,000 to \$5,000. Certain changes in personnel compensation were approved.

The Board approved the Executive Committee's report in toto.

III. REPORTS AND RESOLUTIONS:

The Board offers these recommendations to the House of Delegates pertaining to Reports and Resolutions to be considered by the House.

The Board accepts and recommends favorable consideration of the Report of the Council on Planning and Development and commends to the House of Delegates the Annual Program of Activities contained therein, including budget recommendations.

The Board accepted and approved the Report of the Committee on Appropriations and Auditing, including the Proposed Budget.

Resolutions 1 through 12 were commended to the House for action, through Reference Committees and ultimately the House. Late resolutions 13, 14, 15 and 16 were likewise approved. The Board specifically, strongly endorsed the Special Report from the Council on Public and Mental Health, anticipating active participation of OSMA.

IV. AWARDS AND APPOINTMENTS:

The Board affirms and recommends Mr. Roy C. Lytle, Oklahoma City, to receive the Distinguished Service Award for Outstanding Layman and Hayden Donahue, MD, Norman, to receive the A. H. Robins Award.

The Board appointed Mark R. Johnson, MD, Oklahoma City, Editor-in-Chief of *The Journal*.

V. ITEMS FOR INFORMATION:

The Board approved a policy statement on contributions to charitable organizations or institutions.

The Board received, as information from an individual Trustee, an article concerning a joint nurse-physician practice project.

Orange M. Welborn, MD, Ada, Chairman of the OMPAC Board, presented brief information and will submit a Board recommendation to the next meeting.

VI. LIFE, AFFILIATE AND DUES-EXEMPT MEMBERSHIPS:

The following physicians were approved by the Board for life membership:

Cleveland-McClain County: Orville M. Woodson, MD, Norman

Garfield County: George Ross, MD, Enid, Hope Ross, MD, Enid

Grady County: Richard Giles Stoll, MD, Chickasha

Kiowa-Washita County: Roy W. Anderson, MD, Cordell

Oklahoma County: L. H. Charney, MD, Oklahoma City, Odis A. Cook, MD, Oklahoma City, Samuel R. Fryer, MD, Oklahoma City, John R. Hubbard, MD, Oklahoma City, Lewis C. Taylor, MD, Oklahoma City

Payne-Pawnee County: Powell E. Fry, MD, Stillwater, Harold R. Sanders, MD, Stillwater

Tulsa County: John C. Dague, MD, Tulsa, Harold A. White, MD, Tulsa, Jack L. Richardson, MD, Tulsa

Washington-Nowata County: L. B. Word, MD, Bartlesville

Approval of dues-exemption on the basis of undue hardship was granted to:

Jeanne Rainier, MD, Oklahoma City

James K. Boyd, MD, Tulsa

The Board of Trustees adopted a procedure for hearing appeals brought before the Board.

VII. EXPRESSIONS OF APPRECIATION:

The Chairman expressed appreciation, on behalf of the Board of Trustees, to those retiring Trustees who have provided wise guidance in the deliberations of the Board during their Trustee terms.

Thomas C. Glasscock, MD, Ponca City

The Board recognized the long participation in the affairs of the Association of Ed Calhoon, MD, Beaver, and Mr. Jack Spears, Executive Director of Tulsa County Medical Society for 37 years, and Roger Reid, MD, Ardmore,

former Vice-Speaker and Speaker of the House of Delegates.

VIII. NEW BUSINESS:

The Board approved a staff recommendation for termite control in the Headquarters building. A new telephone communication system is being reviewed and will be considered by the Board at the next scheduled meeting.

The Board authorized signing of a contract between OSMA and OFPR.

The Board approved the expenditure of \$250 to the US Chamber of Commerce and \$150 to the Organization of State Presidents, both items budgeted.

Report of the
SECRETARY-TREASURER
(APPROVED)

INTRODUCTION:

The Oklahoma State Medical Association was formed in 1905 (prior to statehood), when the Indian and Oklahoma Territory Medical Societies were merged. The OSMA is a non-profit corporation organized for the purpose "to federate and bring into one compact organization the entire medical profession of the State of Oklahoma, and to unite with similar societies of other states to form the American Medical Association; to extend medical knowledge and advance medical science; to elevate the standard of medical education, and to secure the enactment and enforcement of just medical laws, to promote friendly intercourse among physicians; to guard and foster the material interests of its members and to protect them against imposition; and to enlighten and direct public opinion in regard to the great problems of state medicine, so that the profession shall become more capable and honorable within itself and more useful to the public, in the prevention and cure of disease, and in prolonging and adding comfort to life. Also to own and publish a medical Journal."

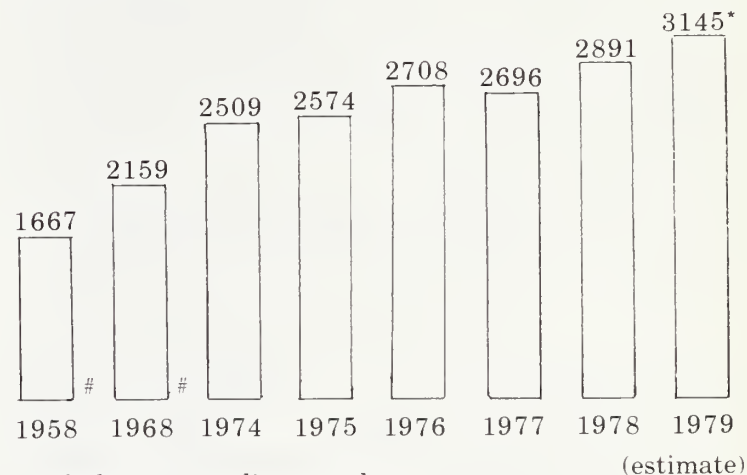
The Association is organized under Chapter 501C (6) of the Internal Revenue Code. The same chapter under which other organizations such as ". . . Business Leagues, Chambers of Commerce, Real Estate Boards, Boards of Trade, or professional football teams . . ." are granted tax exempt status and permits members of the Association to deduct dues, assessments and contributions as business expenses.

MEMBERSHIP:

Membership in the Association is limited to ". . . doctors of medicine who shall have received that degree from an educational institu-

tion approved by the Board of Trustees and who are licensed by the Oklahoma State Board of Medical Examiners." A member of the Association must be a member of their county medical society and the American Medical Association.

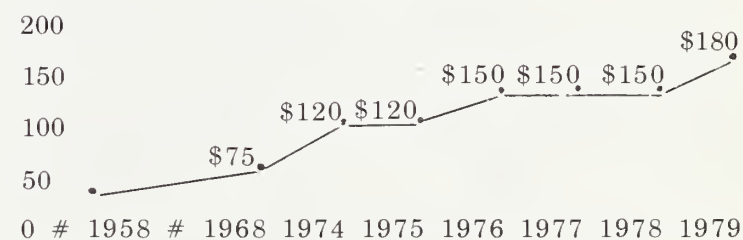
Association membership has always been attractive to practicing physicians. Historical records reflect the following membership growth.



*Includes 272 pending members

DUES:

The Association's principal source of income has always been membership dues. As commitments and responsibilities of the organization increased, there have been corresponding increases in dues:



INCOME:

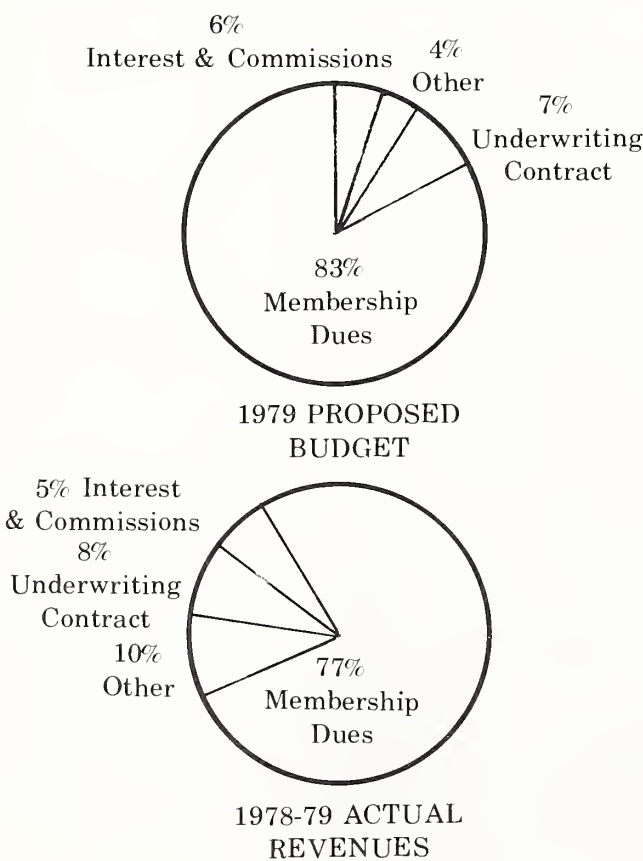
Last year the House of Delegates approved a budget that anticipated an income of \$467,000 and expenditures of \$471,850. To offset the projected \$4,850 deficit, the House also approved a dues increase of \$30, a portion of which accrued to the 1978-79 fiscal year (the Association dues are collected on a calendar-year basis, January 1 to December 31, while the fiscal year is from April 1 to March 31). Actual audited income for the period was \$498,954. Membership dues income of \$337,727 is slightly less than the anticipated \$350,650. However, because of the manner in which the Association collects dues — each county medical society is responsible for collecting membership dues — it is difficult to have all the dues income reported by the close of the fiscal year. Thus, it is very likely that the difference between the projected in-

come and the audited income — \$13,123 — will be collected and can be attributed to 1978-79 income. The budget also projected \$5,500 in income from the sale of data services and services to medical specialty societies. Due to the press of other administrative duties, the Association was not able to extend administrative services to specialty societies, a program that hopefully will be started next year. The Association did collect income from the sale of data services, but the method of accounting does not permit the income figure to show as it was outlined on the proposed budget.

All other areas of income exceeded the estimates established in the budget last year.

INCOME		
	1978-79 Budget	Actual
Membership Dues	\$350,650	\$337,727
Journal Subscriptions (from dues)	23,750	23,812
Journal Sales and Advertising	29,400	35,368
Interest and Commissions	11,000	23,729
Building Lease Income	22,200	22,200
Directory Sales and Advertising	12,000	13,884
Annual Meeting	1,500	3,223
Other	1,000	3,692
Underwriting Contracts	10,000	35,319
Physician Data Service	3,000	—
Specialty Society Services	2,500	—
Total	\$467,000	\$498,954

The 1979-80 budget anticipates an income of \$489,700 for the General Membership. The charts below indicate the distribution of proposed income to 1978-79 actual income.



EXPENSES:

The program adopted by the House of Delegates budgeted expenses at \$471,850. Actual administrative expenses were slightly less than proposed, and council and committee activities were substantially less than proposed. However, 1978-79 was the first year that the Association attempted to allocate expenses on the basis of councils and committees, and it is anticipated that some council and committee expenses are included in the general accounts of the expense budget.

Actual expenditures for the period were \$467,021, approximately \$4,000 less than what was projected. Thus, the Association income exceeded the expenses by \$31,933.

The below schedule indicates the proposed budget expenditures as compared to the actual expenditures.

EXPENSES		
	1978-79 Budget	Actual
Administrative Expenses	\$283,400	\$265,048
Journal Expenses	76,350	95,288
Out-of-State Travel	20,000	21,960
In-State Travel	6,800	6,737
Directory	15,000	10,496
Councils	61,800	34,834
Dues and Subscriptions	4,000	1,988
Depreciation	4,500	7,861
Newsletter	—	4,893
Commissions to County Societies	—	4,234
Underwriting Contract	—	1,047
Annual Meeting	—	12,635
Total	\$471,850	\$467,021

Thus, the Association added to its reserves \$31,933.

PROPOSED BUDGET FOR 1979-80:

The accounting technique for the 1979-80 budget has been slightly altered from the 1978-79 budget. For tax reporting purposes it is necessary for the accountants to separate the unrelated income from the Association's general revenues. Therefore, *The OSMA JOURNAL*, the OFPR building, and the Annual Meeting incomes are treated as separate entities in the proposed budget. General membership income is projected to be \$489,700 with proposed expenses \$408,796, leaving a positive operating balance of \$80,931. However, when the accounting difference for *The JOURNAL* and the Annual Meeting are taken into consideration, the projected operating surplus for 1979-80 would be only \$19,131.

The budget for 1979-80 anticipates a normal growth in income. Expenses anticipate a normal increase in the cost of doing business and a continuation of the Association's current programs.

SUMMARY:

The Board of Trustees and the House of Delegates should take pride in the current financial condition of the Association. Current assets have increased by more than \$100,000 over the last year, and total assets including property and equipment now exceed \$800,000. The Association's unappropriated surplus is \$338,000, which is approximately eight months' operating capital.

The Association's activities today are in keeping with the purposes for which it was founded in 1905;

Membership in OSMA has been historically, and is today, important to Oklahoma physicians;

The principal source of revenue is dues income, and while other income has become a larger percentage of the total, the goals and objectives of the Association are not compromised by dependence on outside revenues;

The Association has maintained its financial integrity by spending less than its income which has resulted in a substantial, tangible benefit for its members;

Expenses relate well to the purposes of the organization, and the percentage of income allocated to professional staff is not disproportionately high.

RECOMMENDATIONS:

1. In order to simplify the accounting procedure and in order to more accurately report to the House of Delegates, it is recommended that the fiscal year of the Association be changed to coincide with the dues year.

2. It is recommended that the loan and scholarship fund identified in the accounting reports be eliminated and that these funds be reported as a part of general membership funds. This transfer would in no way affect the House of Delegates' or the Board of Trustees' ability to appropriate money for loan and scholarship purposes.

3. It is recommended that the House of Delegates authorize the Budget and Audit Committee to negotiate a depository on an annual basis.

OKLAHOMA STATE MEDICAL
ASSOCIATION PROPOSED BUDGET

1979-1980
(APPROVED AS AMENDED)

GENERAL MEMBERSHIP			
REVENUES			
Membership Dues	408,000		
Interest & Commissions	30,000		
Building Lease Income	4,200		
Membership Directory	12,000		
Underwriting & Risk			
Management Income	35,000		
Miscellaneous	500	\$489,700	
EXPENSES			
General Membership —			
Schedule I	301,269		
Depreciation	8,000		
Councils—Schedule II	54,500		
In-State-Travel	8,000		
Out-State-Travel &			
AMA Conventions	25,000		
OSMA Newsletter	5,000		
Commissions to County			
Societies	4,500		
Membership Directory	500		
Underwriting Contract	2,000	\$408,769	
		\$ 80,931	
JOURNAL			
REVENUES			
Subscriptions Allocated from			
Dues	24,000		
Advertising & Sales	35,500	\$ 59,500	
EXPENSES—Schedule I	107,300	\$107,300	
		(\$47,800)	
OFPR BUILDING			
REVENUES	18,000		
EXPENSES	18,000	—0—	
ANNUAL MEETING			
REVENUES	35,000	\$ 35,000	
EXPENSES—Schedule I	49,000	\$ 49,000	
		(\$14,000)	
		Excess (Deficit) of	
		Revenues Over Expenses	\$19,131
SCHEDULE I			
GENERAL MEMBERSHIP EXPENSES			
Salaries	186,700		
Payroll Taxes	11,500		
Pension Costs	17,873		
Office Supplies	21,400		
Legal and Audit	5,990		
Postage and Shipping	14,895		
Telephone and Utilities	20,956		
Dues and Subscriptions	2,187		
Repairs and Maintenance	2,620		
Insurance	22,348		
Equipment Rental	9,600		
Staff and Officers Expense	6,500		
Awards	2,500		

news

Data Processing	2,000	
Other General Expenses	7,500	
Services	2,000	
Interest Expense	2,200	
SUB TOTAL		\$338,769
Overhead Allocated to Journal	(23,500)	
Overhead Allocated to Annual Meeting	(14,000)	
SUB TOTAL		(\$37,500)
TOTAL		\$301,269
JOURNAL EXPENSES		
Printing	35,000	
Salaries	30,000	
Advertising	15,000	
Art Work	2,000	
Proofreading	600	
Supplies	300	
Other	900	
Overhead Allocated from General Membership Expense	23,500	
TOTAL		\$107,300
ANNUAL MEETING EXPENSES		
General Expenses	35,000	
Overhead Allocated from General Membership Expense	14,000	
TOTAL		\$ 49,000

SCHEDULE II

COUNCILS		
Council on Governmental Activities	15,000	
Council on Professional and Public Relations	21,200	
Council on Planning and Development	3,500	
Council on Medical Education	3,500	
Council on Medical Services	3,000	
Council on Members Services	2,500	
Council on Public and Mental Health	2,500	
Council on Scientific Assembly	1,000	
TOTAL		\$ 54,500

MOAK, HUNSAKER & ROUSE
CERTIFIED PUBLIC ACCOUNTANTS
Members American Institute of Certified
Public Accountants
Oklahoma City, Oklahoma 73102

House of Delegates
Oklahoma State Medical Association
Oklahoma City, Oklahoma

We have examined the balance sheet of the Oklahoma State Medical Association as of March 31, 1979 and 1978 and the related statements of revenues and expenses, changes

in fund balance, and changes in financial position for the years then ended. Our examination was made in accordance with generally accepted auditing standards and accordingly included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances.

The Oklahoma State Medical Association does not provide for depreciation on buildings as is required by generally accepted accounting principles.

In our opinion, except as noted in the preceding paragraph, the financial statements referred to above present fairly the financial position of the Oklahoma State Medical Association as of March 31, 1979 and 1978 and the results of its operations and the changes in its financial position for the years then ended, in conformity with generally accepted accounting principles applied on a consistent basis.

Oklahoma City, Oklahoma
April 12, 1979

EXHIBIT A

OKLAHOMA STATE MEDICAL ASSOCIATION
BALANCE SHEET
MARCH 31, 1979 AND 1978

ASSETS	1979	1978
CURRENT ASSETS		
Cash	\$ 10,182	14,100
Savings accounts	485,845	414,661
Accounts receivable	43,428	14,743
Interest receivable	2,094	1,250
Prepaid expenses	9,249	2,744
Total Current Assets	550,798	447,498
PROPERTY AND EQUIPMENT—Note 1		
Land	7,808	7,808
Building	278,708	213,592
Paving	2,451	2,451
Furniture, fixtures and equipment	90,953	62,840
	379,920	286,691
Less: Accumulated depreciation	44,578	36,957
	335,342	249,734
TOTAL	886,140	697,232
LIABILITIES AND FUND BALANCE		
CURRENT LIABILITIES		
Current portion of long-term debt—		
Note 2	3,671	—
Accounts payable—Note 3	105,203	42,652
Accrued payroll taxes	1,599	1,462
Loan and scholarship payable	53,284	36,577
Total Current Liabilities	163,757	80,691
LONG-TERM DEBT – Note 2		
Note payable	17,972	—
DEFERRED INCOME –		
Notes 1 and 4	316,800	261,987

FUND BALANCE – Exhibit C

Appropriated for public education	33,244	32,120
Appropriated for building maintenance	15,859	7,876
Unappropriated	338,508	314,558
	387,611	354,554
TOTAL	\$886,140	697,232

The accompanying letter and notes are an integral part of this statement.

EXHIBIT B

OKLAHOMA STATE MEDICAL ASSOCIATION
STATEMENT OF REVENUES AND EXPENSES
FOR THE YEARS ENDED
MARCH 31, 1979 AND 1978

	1979	1978
FROM OPERATIONS		
Revenues—		
Membership dues	\$337,727	305,351
Interest and commissions	23,729	18,530
Building lease income	22,200	10,805
Membership directory	13,884	3,627
Underwriting and risk management surcharge income	35,319	3,125
Transfer from loan and scholarship	—	5,000
Miscellaneous	3,692	1,905
	436,551	348,343

Expenses—		
General membership—Schedule I	267,036	236,034
Depreciation	7,861	5,679
Council—Schedule 2	34,834	27,653
In-state travel	6,737	7,016
Out-of-state travel and AMA convention expense	21,960	21,147
OSMA newsletter	4,893	2,290
Commissions to county societies	4,234	4,000
Membership directory	10,496	2,767
Underwriting contract	1,047	—
	359,098	306,586
	77,453	41,757

JOURNAL

Revenues—		
Subscriptions allocated from dues	23,812	17,812
Advertising and sales	35,368	28,394
	59,180	46,206
Expenses—Schedule I	95,288	87,243
	(36,108)	(41,037)

ANNUAL MEETING

Revenue	3,223	3,993
Expenses—Schedule I	12,635	10,261
	(9,412)	(6,268)
Excess (Deficit) of Revenue Over Expenses—Exhibit C	\$ 31,933	(5,548)

The accompanying letter and notes are an integral part of this statement.

Certain 1978 amounts have been reclassified to conform to 1979 presentation.

EXHIBIT C

OKLAHOMA STATE MEDICAL ASSOCIATION
STATEMENT OF CHANGES IN FUND BALANCE
FOR THE YEARS ENDED MARCH 31, 1979 AND 1978

	1979	1978
APPROPRIATED FOR PUBLIC EDUCATION—Note 6		
Beginning of period	\$ 32,120	42,750
Excess (deficit) of revenues over Expenses	1,124	(10,630)
End of period—Exhibit A	33,244	32,120

APPROPRIATED FOR BUILDING MAINTENANCE—Note 5

Beginning of period	7,876	7,876
Appropriation for period	7,983	—
End of period—Exhibit A	15,859	7,876

UNAPPROPRIATED

Beginning of period	314,558	320,106
Excess (Deficit) of revenues over expenses—Exhibit B	31,933	(5,548)
	346,491	314,558
Appropriated for building maintenance	7,983	—
End of period—Exhibit A	338,508	314,558
TOTAL	\$387,611	354,554

The accompany letter and notes are an integral part of this statement.

EXHIBIT D

OKLAHOMA STATE MEDICAL ASSOCIATION
STATEMENT OF CHANGES IN FINANCIAL
POSITION FOR THE YEARS ENDED
MARCH 31, 1979 AND 1978

	1979	1978
WORKING CAPITAL PROVIDED		
From operations—		
Excess (Deficit) of revenues over expenses—Exhibit B	31,933	(5,548)
Add: Expenses not requiring outlay of working capital in the current period — Depreciation—Note 1	7,861	5,679
	39,794	131
Increase in appropriated for public education	1,124	—
Increase in long-term debt	17,972	—
Increase in deferred income	54,813	40,879
Total Working Capital Provided	113,703	41,010

WORKING CAPITAL USED

Purchase of property and equipment	93,469	5,108
Decrease in appropriated for public education	—	10,630
Total Working Capital Used	93,469	15,728
Increase in Working Capital	20,234	25,272

INCREASE IN WORKING CAPITAL

Current assets—		
Cash	(3,918)	(44,591)
Savings accounts	71,184	72,919
Accounts receivable	28,685	2,998
Interest receivable	844	108
Prepaid expenses	6,505	1,172
	103,300	32,606

Current liabilities—		
Current portion of long-term debt	(3,671)	—
Accounts payable	(62,551)	8,696
Accrued payroll taxes	(137)	826
Loan and scholarship payable	(16,707)	(16,856)
	(83,066)	(7,334)
Increase in Working Capital	20,234	\$25,272

The accompanying letter and notes are an integral part of this statement.

OKLAHOMA STATE MEDICAL ASSOCIATION
NOTES TO THE FINANCIAL STATEMENTS
MARCH 31, 1979 AND 1978

(1) Accounting Policies—

The following is a summary of certain significant accounting policies followed in the preparation of these financial statements.

Property and equipment—

Property is recorded at cost. Depreciation over the estimated useful lives of the property, except building, is determined on the straight-line basis. Depreciation is not provided on the building.

Deferred income—

Dues, journal subscriptions, underwriting and risk management control surcharge and annual meeting income are prorated over the calendar years to which they apply.

(2) Long-Term Debt — Notes Payable —

The following is a summary of the current and long-term portion of notes payable at March 31, 1979 and 1978:

	1979		1978	
	Current Portion	Long-Term Portion	Current Portion	Long-Term Portion
Installment note payable to Company — Secured by equipment— Payable over 60 months at \$489 including interest at 11 per-cent — Last payment due December 1983	\$5,868	22,005	—	—
Less: Deferred interest	2,197	4,033	—	—
Total	\$3,671	17,972	—	—

(3) Accounts Payable—

The following is a summary of the accounts payable at March 31, 1979 and 1978:

	1979	1978
Trade	\$ 21,857	8,903
Dues	2,255	31,045
County commissions	2,923	2,704
Building construction costs	38,563	—
Medical education endowment	39,605	—
Total	\$105,203	42,652

(4) Deferred Income—

The following is a summary of deferred income as of March 31, 1979 and 1978:

	1979	1978
Dues	\$263,970	222,300
Journal	18,000	17,812

Underwriting and risk		
management surcharge	13,230	21,875
Annual meeting	21,600	—
	\$316,800	261,987

(5) Building Maintenance Appropriation—

The Board of Trustees has adopted the procedure of appropriating 25 percent of the net operating revenues for each period toward building maintenance.

(6) Public Education Appropriation—

During the fiscal year ended May 31, 1976, the Board of Trustees authorized the amounts collected through special assessments be transferred to the Public Education Appropriation. The appropriation will be used to inform the general public of governmental, legislative and bureaucratic regulation over the medical profession and the public.

(7) Professional Liability Stabilization—

The Professional Liability Stabilization Program was established during the year ended May 31, 1976 by assessing the doctors a 15 percent surcharge on their basic professional liability policy. The Insurance Company of North America provides the basic \$100,000/\$300,000 policy. This money will be under the control of two trustees, one appointed by the Medical Association and one appointed by the insurer. As of March 31, 1979, the balance on deposit was \$235,033. The money will not be utilized unless all established reserves of the insurer are first exhausted through the payment of claims.

(8) Professional Liability Excess Coverage—

During the fiscal year ended March 31, 1977, an insurance plan was formed with Hartford and Lloyd's of London to provide excess professional liability coverage. The excess liability policy will cover losses in excess of \$100,000 and less than \$1,000,000 that exceed \$3.25 million per year. In accordance with the plan, a specified portion of the insurance premiums were deposited in a bank in the name of the Oklahoma State Medical Association. The balance of the account on March 31, 1979 was \$740,720. The funds will be used if the insurers' reserves are exhausted through payment of claims.

(9) Contingent Lawsuit—

During the fiscal year ended March 31, 1977, a lawsuit was filed in the state court naming the Oklahoma State Medical Association as a co-defendant. The lawsuit concerns a life insurance proposal by the plaintiff which was not accepted by the Medical Association. According to the Medical Association's legal counsel, the litigation is without merit.

SUPPLEMENTAL MATERIAL

House of Delegates
Oklahoma State Medical Association
Oklahoma City, Oklahoma

Our examination of the financial statements included in the preceding section of this report was directed to an expression of our opinion on these statements taken as a whole. The supplemental material presented in the following section of this report has been subjected to certain audit procedures applied in connection with our examination of the financial statements. This information, while not considered necessary for the fair presentation of the financial position, results of operations and changes in financial position of the Association, is in our opinion fairly stated in all material respects when considered in relation to the financial statements taken as a whole.

Oklahoma City, Oklahoma
April 12, 1979

Schedule 1

*OKLAHOMA STATE MEDICAL ASSOCIATION
SCHEDULES OF EXPENSES
FOR THE YEARS ENDED MARCH 31, 1979 AND 1978*

<i>GENERAL MEMBERSHIP EXPENSES</i>	<i>1979</i>	<i>1978</i>
Salaries	\$157,012	136,850
Payroll taxes	10,453	9,714
Pension costs	16,248	11,841
Office supplies	19,447	13,574
Legal and audit	5,443	8,832
Postage and shipping	13,541	12,633
Telephone and Utilities	18,223	15,864
Dues and subscriptions	1,988	3,868
Repairs and maintenance	2,382	2,275
Insurance	20,316	17,140
Equipment rental	9,383	8,739
Staff and officers' expense	6,747	7,723
Awards	2,566	2,165
Other general expense	7,502	4,804
Data processing	7,691	680
Services	1,893	3,476
Interest	611	—
Total Before Allocation of Overhead	301,446	260,178
Overhead allocated to Journal	(21,775)	(13,883)
Overhead allocated to annual meeting	(12,635)	(10,261)
Total	267,036	236,034

<i>JOURNAL EXPENSES</i>		
Salaries	28,128	29,286
Printing	28,596	28,262
Advertising	13,312	12,656
Art work	1,825	1,536
Proofreading	524	635
Supplies	308	412
Other	820	573
Total Before Allocation of Overhead	73,513	73,360
Overhead allocated from general membership expenses	21,775	13,883
Total	95,288	87,243

<i>ANNUAL MEETING EXPENSES</i>		
Overhead allocated from general membership expenses	\$12,635	10,261

Schedule 2

*OKLAHOMA STATE MEDICAL ASSOCIATION
SCHEDULE OF COUNCIL EXPENSES
FOR THE YEARS ENDED MARCH 31, 1979 AND 1978*

	<i>1979</i>	<i>1978</i>
Council on Governmental Activities	\$25,930	15,365
Council on Professional and Public Relations	6,656	7,935
Council on Planning and Development	1,488	2,469
Council on Medical Education	1,282	467
Council on Medical Services	(1,714)	442
Council on Member Services	630	439
Council on Public and Mental Health	562	536
Total	\$34,834	27,653

*OKLAHOMA STATE MEDICAL ASSOCIATION
SCHEDULE OF REVENUES AND EXPENSES
(COMPARED TO BUDGET)
FOR THE YEAR ENDED MARCH 31, 1979*

Schedule 3

	<i>1979 Actual</i>	<i>1979 Budget</i>	<i>Balance Under (over) Budget</i>
<i>FROM OPERATIONS</i>			
Revenues—			
Membership dues	\$337,727	350,650	(12,923)
Interest and commissions	23,729	11,000	12,729
Building lease income	22,200	22,200	—
Membership directory	13,884	12,000	1,884
Underwriting and risk management surcharge	35,319	10,000	25,319
Miscellaneous	3,692	6,500	(2,808)
Total	436,551	412,350	24,201
Expenses—			
General membership—Schedule 4	267,036	275,000	7,964
Depreciation	7,861	4,500	(3,361)
Council—Schedule 5	34,834	61,800	26,966
In-state travel	6,737	6,800	63
Out-of-state travel and AMA convention expense	21,960	20,000	(1,960)
OSMA newsletter	4,893	2,400	(2,493)
Commissions to county societies	4,234	—	(4,234)
Membership directory	10,496	15,000	4,504
Underwriting contract	1,047	10,000	8,953
Total	359,098	395,500	36,402
	77,453	16,850	60,603
<i>JOURNAL</i>			
Revenues—			
Subscriptions allocated from dues	23,812	23,750	62
Advertising and sales	35,368	29,400	5,968
	59,180	53,150	6,030
Expenses—Schedule 4	95,288	76,350	(18,938)
Total	(36,108)	(23,200)	(12,908)

<i>ANNUAL MEETING</i>			
Revenues	3,223	1,500	1,723
Expenses—Schedule 4	12,635	—	(12,635)
Total	(9,412)	1,500	(10,912)
Excess (Deficit) of Revenues Over Expenses	\$31,933	(4,850)	36,783

Schedule 4

<i>GENERAL MEMBERSHIP EXPENSES</i>			
Salaries	\$157,012	151,350	(5,662)
Payroll taxes	10,453	10,050	(403)
Pension costs	16,248	15,000	(1,248)
Office supplies	19,447	14,250	(5,197)
Legal and audit	5,443	6,400	957
Postage and shipping	13,541	11,000	(2,541)
Telephone and utilities	18,223	16,500	(1,723)
Dues and subscriptions	1,988	4,000	2,012
Repairs and maintenance	2,382	5,550	3,168
Insurance	20,316	15,400	(4,916)
Equipment rental	9,383	9,600	217
Staff and Officers' expense	6,747	8,300	1,553
Awards	2,566	2,400	(166)
Other general expense	7,502	5,200	(2,302)
Data processing	7,691	—	(7,691)
Services	1,893	—	(1,893)
Interest	611	—	(611)
Total Before Allocation of Overhead	301,446	275,000	(26,446)
Overhead allocated to Journal	(21,775)	—	21,775
Overhead allocated to annual meeting	(12,635)	—	12,635
Total	267,036	275,000	7,964

<i>JOURNAL EXPENSES</i>			
Salaries	28,128	32,500	4,372
Printing	28,596	29,000	404
Advertising	13,312	11,500	(1,812)
Art work	1,825	1,600	(225)
Proofreading	524	700	176
Supplies	308	—	(308)
Other	820	1,050	230
Total Before Allocation of Overhead	73,513	76,350	2,837
Overhead allocated from general membership expenses	21,775	—	(21,775)
Total	95,288	76,350	(18,938)

<i>ANNUAL MEETING EXPENSES</i>			
Overhead allocated from general membership expenses	\$12,635	—	(12,635)

SCHEDULE 5

	1979 Actual	1979 Budget	Balance Under (over) Budget
Council on Governmental Activities	\$25,930	20,300	(5,630)
Council on Professional and Public Relations	6,656	23,250	16,594
Council on Planning and Development	1,488	4,000	2,512
Council on Medical Education	1,282	2,500	1,218
Council on Medical Services	(1,714)	4,000	5,714
Council on Member Services	630	3,000	2,370
Council on Public and Mental Health	562	2,750	2,188
Council on Scientific Assembly	—	2,000	2,000
Total	\$34,834	61,800	26,966

Report of the
COUNCIL ON PLANNING AND
DEVELOPMENT
(APPROVED)

INTRODUCTION:

The Council on Planning and Development is charged with the responsibility of monitoring and coordinating the multiple activities of the Association. Each year the Council meets twice to review progress of the operating councils and committees and to write a program of activities for approval by the House of Delegates. The basic objective of the Council is to ensure that the Association's limited resources are expended on high yield activities and to eliminate misdirected efforts and duplication.

REVIEW OF ACTIVITIES:

The Council met in Oklahoma City in the fall to hear progress reports from the council and committees. The two-day meeting was well attended and the Council provided advice and counsel to the various chairmen.

In early April the Council met in Tulsa to review activities and prepare the program for next year.

All of the councils have done an outstanding job and deserve commendation from the delegates. The activities of the Association are in keeping with the direction set by the Delegates last year and the programs developed for next year are both administratively and financially feasible. Most of the councils have recommended a continuation of last year's programs. Total proposed council and committee expenditures for 1979-80 are estimated at \$54,500,

down slightly from last year. The following is a synopsis of proposed programs.

A. Council on Medical Services — (Reference Committee No. 1)

The Council recognizes the importance of increased physician placement activity; the need for special consultation in Peer Review Committee efforts; plans several programs on office and personnel management; will continue its ad hoc committees until their work is accomplished; will continue its efforts to influence the health planning process; and will attempt to identify problems in medical services that can be addressed by the Council.

Budget Request — \$3,000

B. Council on Members Services. (Reference Committee No. 1)

This Council is responsible for association programs that result in financial benefit that far exceed the dues paid. The malpractice program alone saves doctors and patients millions of dollars each year. In addition, the Council endorses other insurance programs that provide a wide range of benefits.

The Council asks for authority to continue its programs from last year and has not requested an increased appropriation. However, there is a special report pending before the House of Delegates asking for standby authority to organize an insurance company if it is deemed necessary. If the delegates approve the report and if the Board of Trustees should create the company, it should be anticipated that the Council would incur expenses in excess of its request.

Budget Request \$2,500

C. Council on Governmental Activities (Reference Committee No. 1)

The Council has been extremely active this year in both federal and state legislation and has accomplished considerable success in both legislative bodies. The Council requests authority to continue its contract with John Montgomery to conduct two health forums with federal legislators during 1979-80; to continue liaison trips to Washington and to produce regular federal and state legislative newsletters.

The budget request of \$15,000 is less than last year's request, but the Council has transferred its financial responsibility for its Washington operation to general administrative expense.

Budget request — \$15,000

D. Council on Professional and Public Relations (Reference Committee No. 2)

The full review of this council's activities is set forth in its report to the Delegates. Of all the Association councils, this is one of the most important. Council chairman and members should be commended for their outstanding programs and for their many accomplishments.

The Council requests an appropriation of \$25,000 for its operations for next year, a slight increase over last year. Within the budget there is a request for funds to produce and distribute additional public service announcements, an activity that has been done for the past several years. However, because of excellent PSAs available through the AMA, the Council did not have to incur the expense of producing new spots in 1978-79. In view of the success of the Council programs, the increase in appropriations is recommended.

Budget Request \$25,000

E. Council on Public and Mental Health (Reference Committee No. 2)

This Council has participated in CPR programs in the past year; continued its maternal mortality committee; activated its committee on Environmental Quality and plans to continue its programs for next year. It specifically asks for increased educational activities to inform physicians of several public health problems, especially information on maternal mortality. The Council has also submitted a special report dealing with health education in the public school system with the request that the Board of Trustees and House of Delegates endorse the Oklahoma Health Education Advisory Council. While the Council has not been formally organized at this point, it appears that their proposed program is both comprehensive and worthy of support. In the event the Board approves the special report, funds in addition to its request may be needed.

Budget Request \$2,500

F. Council on Scientific Assembly

This Council, organized for the purpose of providing educational opportunities to physicians, has been dormant since it was created two years ago. Its principal purpose was to coordinate the scientific offerings at the OSMA annual meeting. Since the OSMA has been only one of three participants in the Summit annual sessions, the Council has had no direct role in planning the annual meetings. The As-

sociation has approved a direct liaison and the offering of administrative services to medical specialty societies, all of which are represented on the Council on Scientific Assembly. The \$1,000 budget request would be sufficient funds to get this committee started.

Budget Request \$1,000

G. Council on Medical Education (Reference Committee No. 2)

The Council requests \$2,000 to continue its program of surveying and resurveying institutions approved for conducting medical education courses. It asks for funds to conduct programs with hospital staffs and county medical societies and to send representatives to county, state and national meetings.

Budget Request \$2,000

H. Council on Planning and Development (Reference Committee No. 3)

The Council on Planning and Development holds two, 2-day meetings each year to discuss the operations of OSMA.

Budget Request \$3,500

RECAPITULATION:

Council on Medical Services	\$3,000
Council on Members Services	2,500
Council on Professional and Public Relations	25,000
Council on Governmental Activities	15,000
Council on Public and Mental Health	2,500
Council on Scientific Assembly	1,000
Council on Medical Education	2,000
Council on Planning and Development	3,500
Total:	\$54,500

RECOMMENDATION:

It is the recommendation that the Report of the Council and the aforementioned appropriations be approved.

Report of the
COMMITTEE ON CONSTITUTION AND
BYLAWS
(APPROVED)

The Committee has reviewed carefully the various proposals to change OSMA Bylaws. It is the opinion of the Committee that the resolutions before the House of Delegates are in proper order and will, if passed, accomplish the desired objectives.

The Committee takes no official position on any of the Bylaws changes before the House.

Resolution: 1
(APPROVED)

SUBJECT: Support for State Legislative Activities

INTRODUCED BY: Council on Governmental Activities, State Legislative Committee, Board of Directors of the Oklahoma Medical Political Action Committee

REFERRED TO: Reference Committee I

WHEREAS, The Oklahoma State Legislature, in recent years, has shown an ever increasing interest in medical legislation; and

WHEREAS, Much of this proposed legislation would have a detrimental effect on the practice of medicine and consequently on patient care:

To-Wit:

SB 161—By Wolfe of the Senate and Stewart of the House would prohibit the application of the Doctrine of Forum Non Conveniens and permit the filing of a malpractice action against a physician in any legal jurisdiction; and

SB 158—By Watson of the Senate and Birdsong of the House would require hospitals to open their medical staff to podiatrists; and SB 285—By Randle of the Senate and Morgan of the House would permit optometrists to use ophthalmic drugs; and

HB 1398—By Steward, would eliminate the three year statute of limitations in malpractice actions; and

WHEREAS, to sustain an aggressive and successful legislative program the Association must have sufficient funds; therefore be it

RESOLVED, That each member of the House of Delegates, OSMA Officers, Trustees and all members of the Association are hereby urged to contribute a minimum of \$200 each to the Oklahoma Medical Political Action Committee for Association legislative activities, specifically with more consideration of State legislative activities.

Resolution: 2
(APPROVED)

SUBJECT: Formation of a Captive Insurance Company

INTRODUCED BY: Council on Members Services

REFERRED TO: Reference Committee I

WHEREAS, The future of the professional liability insurance market in this country remains questionable; and

WHEREAS, Physicians insured through the OSMA-sponsored professional liability insurance program have experienced sizable increases in their insurance rates during the past few years; and

WHEREAS, The Association has a responsibility to its members to provide a stable professional liability insurance market in this state as well as quality coverage at the lowest possible cost; therefore be it

RESOLVED, That the House of Delegates of the Oklahoma State Medical Association hereby empowers the members of the Board of Trustees of the Oklahoma State Medical Association to organize and form an insurance company owned by the OSMA for the purpose of writing professional liability and related lines of insurance on Oklahoma physicians; and be it further

RESOLVED, That the members of the Association, who are insured by the company are each to be assessed in an amount to be determined by the Board of Trustees, not to exceed \$2,000.00 per physician in the year the company is formed but to be collected on an installment basis, one-third on January 1 of the year following the year in which the company is formed; one-third on January 1 of the following year; and the final installment of one-third on January 1 of the second following year, which assessment is payable by members of the Association who are insured by the insurance company and who continue to be insurable. New insureds to the insurance company will be assessed an equivalent fee. All of the monies collected from the assessment shall be used exclusively for payment of the costs of forming and funding the aforementioned insurance company; and be it further

RESOLVED, That the Board of Trustees of the Oklahoma State Medical Association is empowered to:

1. Enter into loans or other financing agreements on behalf of the OSMA, as may be necessary for the formation and funding of the aforementioned insurance company. In this regard, the Trustees are authorized to pledge any or all of the assets of the Association and to pledge the assessments to be received by the Association pursuant to this resolution in order to secure any loans or obligations but in no event shall such loans or obligations exceed the amount of revenue to be collected by way of the aforementioned assessment.

2. Enter into a contract with a competent,

experienced company to organize, form and manage said insurance company.

Resolution: 3
(DISAPPROVED)

SUBJECT: Resident Membership
INTRODUCED BY: Constitution and Bylaws Committee

REFERRED TO: Reference Committee II

WHEREAS, Under current medical training there is no longer truly an "internship", and

WHEREAS, In 1972 the American Medical Association amended its Constitution and Bylaws to provide full membership benefits to interns and residents; and

WHEREAS, The AMA Bylaws specify that only an individual with full membership privileges may be counted by a constituent state association for purposes of AMA delegate representation; therefore be it

RESOLVED, That the House of Delegates of the Oklahoma State Medical Association amend the Bylaws as follows:

Chapter I *Membership*, sections 2.05 and 2.051 are amended to read as follows:

"Section 2.05 JUNIOR MEMBERS. *Notwithstanding Section 1.00, above, physicians holding the Doctor of Medicine Degree* serving as full-time residents, upon application of the component society, may become junior members of the component society and of this association. Membership in this classification is limited to the period of training."

"2.051 RIGHTS. Junior members may be assessed dues annually by the House of Delegates. They shall be entitled to all the privileges of membership."

Resolution: 4
(APPROVED)

SUBJECT: Executive Committee
INTRODUCED BY: Constitution and Bylaws Committee

REFERRED TO: Reference Committee III

WHEREAS, The Association Bylaws specify that the Executive Committee shall consist of the general officers of the Association and the Chairman of the Board of Trustees; now therefore be it

RESOLVED, that the House of Delegates of the Oklahoma State Medical Association amend the Bylaws as follows:

Section 3.00 of Chapter X is amended to read as follows:

"Section 3.00 EXECUTIVE COMMITTEE. The Executive Committee shall consist of the

general officers of the Association as defined in Chapter VI, Section 1.00, and the Chairman and Vice-Chairman of the Board of Trustees."

(NOTE: This amendment expands the Executive Committee by adding the Vice-Chairman of the Board of Trustees. With this amendment in place the Executive Committee would consist of the Chairman and Vice-Chairman of the Board of Trustees, the President, President-Elect, Immediate Past-President, Vice-President, Secretary-Treasurer, and Speaker and Vice-Speaker of the House of Delegates.)

Resolution: 5
(APPROVED)

SUBJECT: Planning and Development Council Composition

INTRODUCED BY: Constitution and Bylaws Committee

REFERRED TO: Reference Committee III

WHEREAS, It is the purpose of the OSMA's Council on Planning and Development to study and make recommendations regarding long-range objectives of the Association; and

WHEREAS, It is the desire of the Association to make the Council as representative as possible; therefore be it

RESOLVED, That the House of Delegates of the Oklahoma State Medical Association hereby amend the Bylaws as follows:

Section 1.02 of Chapter IX is deleted and replaced with the following:

"1.02 APPOINTMENT. The President shall appoint all members of the Councils of the Association on an annual basis. The number of members to appoint to each Council shall be determined on an "as needed" basis by the President, unless otherwise specified in these Bylaws."

A new Section 2.02 is added to Chapter IX as follows:

"2.02 APPOINTMENT. The Council on Planning and Development shall be chaired by the Immediate Past-President, and shall otherwise consist of the President, President-Elect, Vice-President, Secretary-Treasurer, Speaker of the House of Delegates, Vice-Speaker of the House of Delegates, Chairman of the Board of Trustees, Vice-Chairman of the Board of Trustees, and the Chairmen of all other Association Councils and Delegates and Alternate-Delegates to the American Medical Association."

(NOTE: The above outlined amendments correct an oversight in the original Bylaws in

which there was no provision for the appointment of Council members by the President. In addition, it adds to the Council on Planning and Development the Vice-Chairman of the Board of Trustees and Vice-Speaker of the House of Delegates. All other members remain as specified in the current Bylaws.)

Resolution: 6
(APPROVED)

SUBJECT: Dues Payment Delinquency Date
INTRODUCED BY: Constitution and Bylaws
Committee

REFERRED TO: Reference Committee III

WHEREAS, There are conflicts in dues payment schedules, and delinquency dates, among the various county medical societies and the Association, and

WHEREAS, Such scheduling differences lead to confusion on the part of individual members and component county medical societies; now therefore be it

RESOLVED, That the House of Delegates of the Oklahoma State Medical Association amend the Bylaws as follows:

Section 1.04 of Chapter II is amended to read as follows:

"1.04 DUE DATE. Dues shall be due and payable on January 1 of the year for which levied, and shall become delinquent if not paid before March 15 of that year."; now therefore be it further

RESOLVED, that the House of Delegates requests all county medical societies to adopt the following dues schedule: Dues due and payable on January 1, delinquent if not paid before February 28, membership suspended if not paid before March 31, and membership terminated if not paid before May 31.

(NOTE: With the exceptions of Oklahoma and Tulsa Counties, most county medical societies adopted a model Bylaw recommended in 1969 that stated that dues were delinquent on March 31, and the member was automatically suspended on that same date for failure to pay. In addition, there was an automatic termination on May 31. Oklahoma County has a delinquent date of February 28 with automatic suspension on that date, and an automatic termination date of May 31. Tulsa County does not have a formal delinquent date, but specifies that a member may be suspended on March 31 if given appropriate notice, but the

notice usually contains a 30 day grace period. Termination date in Tulsa County is May 31, but again it requires a special notice.

(By establishing the Association's delinquency date at March 15, and encouraging the county societies to set a delinquency date of February 28, each county society would then have approximately 15 days from their own delinquency date to follow up on the non-payment before action could be taken by the Association.)

Resolution: 7
(DISAPPROVED)

SUBJECT: Creation of a Council on Products and Services
INTRODUCED BY: Constitution and Bylaws
Committee

REFERRED TO: Reference Committee I

WHEREAS, The OSMA has received numerous requests in the past to endorse commercial ventures; and

WHEREAS, The Association does not have an appropriate council or committee to which such proposals could be directed; and

WHEREAS, There may be such endeavors that the Association should approve or endorse for the common good of Association members; now therefore be it

RESOLVED, That the House of Delegates of the Oklahoma State Medical Association amend the Bylaws as follows:

Article IX is amended by adding a Section 10.00 as follows:

"Section 10.00 Council on Products and Services

10.01 DUTIES. the Council will receive and evaluate requests for the Association to endorse or approve products or services. Following a detailed evaluation, in which the Council may call upon the services of any Association Committee or Council, a recommendation will be referred to the Board of Trustees for final action.

10.02 GUIDELINES. The Board of Trustees shall establish a set of guidelines delineating the Council's responsibility.

10.03 APPOINTMENT. This Council shall consist of seven members appointed annually by the President. He shall designate one of the seven as Chairman of the Council."

(NOTE: The guideline to be established by the Board of Trustees could give the Council a number of alternative positions that it could recommend, restrict the type of products or

services to be evaluated, and specify whether or not fees could be charged for such endorsements or approvals.)

Resolution: 8

(APPROVED AS AMENDED)

SUBJECT: Cost Awareness: Providing a Copy of the Patient's Hospital Bill to the Attending Physician

INTRODUCED BY: Board of Directors, Tulsa County Medical Society

REFERRED TO: Reference Committee II

WHEREAS, To be an effective participant in a continuing effort to contain or reduce health care costs, a physician must be informed as to the charges made by the hospital for services to his patient; and

WHEREAS, Such information would assist in educating and familiarizing the physician with the unit charges for tests and procedures ordered in the hospital, as well as the patient's total obligation; and

WHEREAS, such information will enable the physician to evaluate the cost effectiveness of such tests and procedures; and

WHEREAS, Such information will contribute to productive efforts to reduce or contain health care costs; therefore be it

RESOLVED, That Oklahoma State Medical Association request all general hospitals in the State of Oklahoma to provide a copy of each patient's bill to the attending physician for a period of three months, and thereafter to provide a random sampling of billings for ten percent of his admissions; and be it further

RESOLVED, That Oklahoma State Medical Association request Oklahoma Hospital Association to formally endorse and support this project in the interests of containment or reduction of health care costs.

Resolution: 9

(DISAPPROVED)

SUBJECT: Compulsory American Medical Association Membership

INTRODUCED BY: Payne-Pawnee County Medical Society

REFERRED TO: Reference Committee III

WHEREAS, Oklahoma is one (1) of only six (6) state medical associations which still require compulsory membership in AMA; therefore be it

RESOLVED, That membership in the American Medical Association be voluntary and not mandatory for membership in the

Oklahoma State Medical Association; and be it further

RESOLVED, That appropriate amendments to the constitution and bylaws of the Oklahoma State Medical Association be enacted to accomplish this purpose.

Resolution: 10

(DISAPPROVED)

SUBJECT: Mandatory AMA Dues

INTRODUCED BY: Constitution and Bylaws Committee

REFERRED TO: Reference Committee III

WHEREAS, There exists the possibility that the House of Delegates of the OSMA may wish to amend its Constitution and Bylaws to eliminate mandatory AMA membership requirement; and

WHEREAS, It is the duty and function of the Constitution and Bylaws Committee to prepare or review any suggested amendments to the Bylaws before consideration by the House of Delegates; now therefore be it

RESOLVED, That if the House of Delegates of the Oklahoma State Medical Association wishes to eliminate mandatory AMA membership requirement, it adopt the following Bylaws amendments:

Chapter II, *Section 2.00* should be deleted, except for the section number and title and the following wording inserted in its place:

"*Section 2.00* AMERICAN MEDICAL ASSOCIATION DUES. Members of this Association who elect to become members of the American Medical Association, shall pay AMA dues and assessments as levied for their appropriate classification of membership. AMA dues and assessments should be collected and remitted by component societies in like manner as state association dues and assessments."

Chapter V, *Section 7.036* should be amended by inserting the words "involving AMA members" so that the first sentence in that section should read, "Judicial decisions of the Board of Trustees *involving AMA members* may be appealed to the Judicial Council of the American Medical Association in accordance with that organization's Constitution and Bylaws."; and be it further

RESOLVED, In the event the House of Delegates chooses to make AMA membership voluntary, the House should recommend that all county medical societies be instructed to amend their Bylaws accordingly.

(NOTE: The question as to whether or not

the AMA membership requirement should be changed has arisen numerous times in the past. On each of those occasions your Committee has determined that it did not wish to take a stand on the issue, but simply recommended the wording to be adopted by the House of Delegates if it chooses to remove this requirement.)

Resolution: 11
(APPROVED)

SUBJECT: Opposing Optometrists Using Medications

INTRODUCED BY: William Hughes, MD and J. C. Cole, MD

REFERRED TO: Reference Committee I

WHEREAS, Physicians are obliged to protect the public welfare and speak out against unwise medical practices; and

WHEREAS, Ophthalmologists are physicians (MD or DO) who are trained to diagnose and treat ocular and systemic diseases while optometrists are technicians trained to fit and dispense glasses and contact lenses and are not trained to diagnose or treat diseases; and

WHEREAS, Efforts by organized optometry are under way to allow these non-medical practitioners to use prescription medication without medical training; therefore be it.

RESOLVED, That the Oklahoma State Medical Association should oppose all legislation which would allow the use of medications in diagnosis or treatment of eye disease by optometrists.

Late Resolution: 12
(APPROVED)

SUBJECT: Mobile Drug Abusers

INTRODUCED BY: Ray V. McIntyre, MD

REFERRED TO: Reference Committee II

WHEREAS, Oklahoma physicians are plagued with numerous drug abusers who roam about the state presenting themselves to various clinics and sundry emergency rooms with false stories of painful illness and insisting on treatment with narcotic and psychotropic drugs; and,

WHEREAS, These drug abusers resist definitive treatment, proper follow-up or psychiatric referral, and usually abscond to another location if challenged; and

WHEREAS, Many of these unfortunate in-

dividuals go on to total drug dependence, underworld procurement and criminal activity, and there is at present no effective method of treating them or preventing their deterioration; therefore be it

RESOLVED, That the Oklahoma State Medical Association directs the Council on Public and Mental Health to study this problem and consider remedies designed to follow the abuser and to encourage him to receive proper treatment for his drug dependence problem. The Council is hereby charged to report its recommendations for remedy to the OSMA Board of Trustees before March 1, 1980.

Late Resolution: 13
(APPROVED)

SUBJECT: Student Membership

INTRODUCED BY: Constitution and Bylaws Committee

REFERRED TO: Reference Committee II

WHEREAS, In 1972 the American Medical Association amended its Constitution and Bylaws to provide full membership benefits to medical students; and

WHEREAS, The AMA Bylaws specify that only individuals with full membership privileges may be counted by a constituent state medical association for purposes of AMA delegate representation; therefore be it

RESOLVED, That the House of Delegates of the Oklahoma State Medical Association amend the Bylaws as follows:

Chapter I, subsections 2.08 and 2.081 are amended to read as follows:

"2.08 STUDENT MEMBERS. *Not withstanding Section 1.00*, above, persons serving as full time medical students in the Oklahoma University College of Medicine, upon application of a component society, may become student members of the component society and of this association. Membership in this classification is limited to the period of training.

"2.081 RIGHTS. Student members may be assessed dues annually by the House of Delegates. They shall be entitled to all of the privileges of membership.

Chapter IV *House of Delegates, Section 1.00* is amended to read as follows:

"*Section 1.00* COMPOSITION. The House of Delegates shall be comprised of the General Officers of the association, Delegates and Alternate Delegates to the American Medical Association, Trustees and Alternate Trustees, delegates elected by the component societies,

and two delegates to be elected by the American Medical Student Association Chapter located at the Oklahoma University College of Medicine."

Subsection 1.04 is amended to read as follows:

"1.04 AMSA REPRESENTATION. The two delegates from the Oklahoma University AMSA Chapter shall be allowed full privileges of the House of Delegates.

Late Resolution: 14
(APPROVED AS AMENDED)

SUBJECT: 1980 Dues

INTRODUCED BY: Board of Trustees

REFERRED TO: Reference Committee III

WHEREAS, The Constitution and Bylaws of the Association require that the House of Delegates shall levy such dues and assessments as it considers proper for the conduct of the business of the Association; therefore be it

RESOLVED, That the dues for 1980 shall be:

Active Members \$180

Junior Members \$10

(Residents)

Student Members

The following membership classifications pay no dues:

Active Dues Exempt Members

Life Members

Honorary Members

Dues for the following membership classifications are set by the Board of Trustees:

Affiliate Members

Corresponding Members

Late Resolution: 15
(APPROVED)

SUBJECT: Opposing Non-Medically Supervised Speech and Hearing Clinics

INTRODUCED BY: Volunteer & Full-Time Faculty, Department of Otorhinolaryngology, University of Oklahoma Health Sciences Center

REFERRED TO: Reference Committee I

WHEREAS, The American Medical Association House of Delegates, at its December, 1976, meeting in Philadelphia, unanimously adopted a resolution reaffirming the traditional role of the physician in the diagnosis and treatment of hearing, speech and equilibratory disorders; and

WHEREAS, The University of Oklahoma

Health Sciences Center Administration is currently pressing the Department of Otorhinolaryngology of the College of Health to capitulate to a change in this role by mandating referral of patients to a Speech and Hearing Center not medically supervised; and

WHEREAS, This disagreement is now placing in jeopardy the existence of the only otorhinolaryngology training program in the State of Oklahoma; therefore be it

RESOLVED, That the Oklahoma State Medical Association reaffirm their support of the American Medical Association resolution regarding diagnosis and treatment of hearing, speech and equilibratory disorders; and be it further

RESOLVED, That the Oklahoma State Medical Association advise the President of the University of Oklahoma of their position and concern in this matter.

Late Resolution: 16
(APPROVED)

SUBJECT: Hospital Cost Containment Legislation

INTRODUCED BY: Board of Trustees

REFERRED TO: Reference Committee I

WHEREAS, Federal hospital cost containment legislation, which establishes a limit on hospital cost increases in Oklahoma, would seriously jeopardize the physician's ability to care for his patients, and

WHEREAS, Both Congress and the administration have established many new standards and requirements for hospitals which greatly increase the cost of operation, and

WHEREAS, These regulations have a particularly burdensome effect on rural hospitals to a degree that some hospitals attribute as much as 30% of their operating costs to compliance with these regulations, and

WHEREAS, Neither hospitals nor the medical profession have any control over many of the factors which contribute to rising costs, and

WHEREAS, Current federal hospital cost containment legislation does not recognize these facts, therefore be it

RESOLVED, That the House of Delegates of the Oklahoma State Medical Association once again endorse reasonable cost effective measures such as the Voluntary Effort and the Oklahoma Utilization Review System, but oppose federal cost containment legislation which has been introduced before the Congress. □

**OKLAHOMA
STATE MEDICAL ASSOCIATION
1980 ANNUAL MEETING**

LINCOLN PLAZA FORUM

MAY 8 - 10, 1980

OKLAHOMA CITY, OKLAHOMA



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Precious Protocols

There has been more emphasis in recent years on the treatment of the critically injured and the critically ill patient. And rightly so. The acutely ill or injured patient requires a somewhat different approach than the one that is usually used during routine medical practice. Usually, the complaint, the history, the physical examination and the diagnosis is established to be followed by appropriate treatment. The reverse is true with the critically ill or the critically injured in whom all thought must be turned to immediate life support and measurement of vital functions. After restoring respirations, starting intravenous lines, drawing appropriate blood samples, inserting central venous lines, monitoring cardiac activity, inserting Foley catheters and nasogastric tubes — then and only then — do we begin to establish a

diagnosis and consider specific treatment. Life support comes first.

The logical approach, therefore, to the critically ill or injured patient is one that involves the following of a set pattern or protocol. Have you outlined for your staff, office or hospital, what procedures they should follow if a life-threatening situation occurs? Has the emergency department in your hospital established a protocol for receiving the acutely ill or the acutely injured? Although one may dislike a rigid approach to the practice of medicine, certainly in emergency situations appropriate guides must be prepared beforehand. Only in this way can we respond without hesitation and save those precious seconds that are ticking away during life-threatening situations. *Robert J. Wilder, MD, Professor of Surgery and Director, Emergency Medical and Trauma Center, University of Oklahoma Health Sciences Center.*

Thoughts of Tomorrow

"Whether it's the best of times or the worst of times, it's the only time you've got." This paraphrase of Dickens by Art Buchwald suggests the situation of medicine today. If we are to maintain our high standards and improve our current status then we must prepare well for the future.

The finest preparation is made by continuing to recommend the best people to enter the medical profession. This is our responsibility. Physicians must do more than just practice medicine. Their knowledge needs to be "well-rounded." They are potential leaders and men of initiative. Most are interested in civic affairs. This capability may involve them in fields other than medicine. They should be proud of their profession, but interested in all phases of living. They must be able to maintain independence of thought and freedom of action.



These characteristics describe most physicians today. It must be descriptive of the physician of tomorrow.

Last month in this column we discussed physicians of the passing generation. Now we are concerned with physicians of the coming generation.

Whom have you encouraged to go into medicine today?

Have you discussed it with your own children?

Many discouraging comments concerning the future of medicine are heard too frequently. They need no repetition here. We are all familiar with them. It would be better for us to follow the exhortation from Dickens.

It is well for a man to respect his own vocation whatever it is and to think himself bound to uphold it and to claim for it the respect it deserves.

H. M. McLeeson, M.D.

Non-Invasive Testing for Extracranial Cerebrovascular Disease

H. JACK BROWN, MD
HENRY J. PEARCE, MD

Strokes, frequently due to surgically correctable extracranial vascular disease, continue to occur at an alarming incidence. New techniques of safe non-invasive testing of cerebral circulation uses as screening devices will hopefully reduce this incidence.

Stroke is the third leading, over-all cause of death and the second leading cause of cardiovascular death in the United States. In addition, sub-lethal cerebral infarction often places an enormous emotional and economic burden on patients, their families and on society itself. New strokes occur in approximately 160 per 100,000 population per year. And, yet 67% of these strokes are caused by vascular lesions in the extra-cranial arteries which are amenable to surgery if the diagnosis can be made and the problem corrected before stroke occurs.

The majority of patients suffer from warning symptoms prior to the actual occurrence of a

stroke. However, the vague nature of many of these complaints has often led to failure on the part of the patient and his physician to pursue these complaints to a diagnostic conclusion. The time, expense and definite risks of angiographic studies are partially responsible. New non-invasive techniques in the evaluation of the extra-cranial arteries should prove extremely helpful in screening patients and preventing unnecessary angiographic studies.

The clinical manifestations of cerebrovascular insufficiency may vary from a minor episode of neurologic dysfunction lasting less than 24 hours to a major episode of cerebral infarction resulting in a permanent neurologic deficit. Transient ischemic attacks (TIA) are those episodes of neurologic dysfunction lasting from a few minutes to less than 24 hours with complete recovery without a residual neurologic deficit. These attacks may produce lateralizing symptoms or may be more generalized with ataxia, dizziness, vertigo, or syncope. The most common form of TIA is transient monocular blindness (amaurosis fugax). The patient will characteristically describe a window shade being slowly drawn across the field of vision of the affected eye. A TIA involving a hemisphere may produce hemiparesis or hemidysesthesia. Occasionally only one extremity may be involved. If the attack is on the dominant hemisphere there may be transient expressive dysphasia. Attacks in

the anterior circulation may cause severe frontal headaches and occasional seizures.

Transient ischemic attacks originating in the vertebral basilar system affect the brain stem producing ataxia, vertigo (often precipitated by positional changes of the head and neck), syncope, presyncope, or drop attacks. In a drop attack the otherwise alert individual suddenly experiences his legs giving away and he falls helplessly to the ground. Posterior circulation TIAs can also cause cranial nerve dysfunction with motor or sensory changes in the face, dysphasia, and dysarthria, and abnormal extra-ocular movements.

The following non-invasive diagnostic studies are useful in the evaluation of these patients.

Electrocardiogram: This study is essential to screen for coronary artery disease as evidenced by previous myocardial infarction.

Electroencephalogram: This study is helpful in differentiating between a seizure disorder and transient ischemic attacks.

Brain Scanning: Scans can be useful to diagnose brain tumors and subdural hematomas which may enter into the differential diagnosis of the patients' symptoms. A

A graduate of the University of Oklahoma College of Medicine, H. Jack Brown, MD, has been certified by the American Board of Surgery. Dr Brown is Clinical Instructor of Surgery at his school of graduation. Among his medical affiliations are the American College of Surgeons; the Southwestern Surgical Congress; the Alpha Omega Alpha; the Oklahoma Surgical Society, Oklahoma Chapter; the American College of Surgeons; the Oklahoma City Surgical Society and the John Hunter Surgical Society.

Henry J. Pearce, MD, was graduated from the University of Oklahoma College of Medicine where he is now Clinical Instructor of Surgery. Dr Pearce is certified by the American Board of Surgery. He is a member of the American College of Surgeons, the Southwestern Surgical Congress, the Oklahoma Surgical Society, the Oklahoma City Surgical Society and the Oklahoma Chapter of the American College of Surgeons.

dynamic or flow scan also assists in noting reduced flow rates in the presence of carotid occlusion. Finally, brain scans can be most helpful in following the resolution of a cerebral infarction. When cerebral infarction occurs, there will be a breakdown in the blood-brain barrier, which may be reflected in the brain scan by an area of increased isotope uptake or a "hot spot." The appearance of a hot spot occurs within three-to-five days of the infarction, and will disappear following healing or resolution of the cerebral infarction. The finding of a hot spot is a contraindication for arteriography or surgery until the blood-brain barrier defect has resolved.

Carotid Phonoangiography (CPA): This study uses a special microphone to pick up bruits transcutaneously for electronic amplification, auditory evaluation, and oscilloscopy visualization. Polaroid photographs provide permanent records of the visualized waveforms. The recording of vascular sounds over the common carotid, the carotid bifurcation and the angle of the jaw allow the differentiation between bruits of supraclavicular origin and those originating in the carotids. As the internal carotid system has a high level of diastolic blood flow, a bruit extending into diastole over the carotid bifurcation is diagnostic of internal carotid stenosis and further indicates more severe contralateral internal carotid stenosis or poor quality communicating arteries. Internal carotid stenosis greater than 85% often allows insufficient blood flow to create a bruit. Prior to disappearing completely the bruit becomes very high pitched. The carotid phonoangiogram alone is not highly accurate for detecting significant internal carotid artery stenosis. An accuracy of 69% was reported from the Tucson Medical Center based on 14,500 examinations in 10,400 patients.¹ Combined with the oculoplethysmograph and ophthalmosonometry this diagnostic accuracy can be dramatically increased.

Oculoplethysmography (OPG): This test is a volumetric recording of pulse time delay. A cyclic variation of blood volume within the eye results from the relative difference between the pulsatile arterial inflow to the eye and the constant venous outflow. OPG uses corneal suction cups to detect the pulsatile variations in ocular volume. Sensitive graphic recordings of the very small eye volume variations are made by sensing pressure changes within the suction cup.

Oculoplethysmography should not be confused with suction ophthalmodynamometry in which cessation of retinal artery blood flow is evoked in response to induced ocular hypertension. Suction ophthalmodynamometry may be used for detecting the cessation of retinal artery blood flow. Retinal artery pressure, however, is determined in response to the induced ocular hypertension rather than by purely plethysmographic recordings.

In OPG the primary parameter reflecting proximal arterial stenosis is not pulse amplitude but rather a slight delay in the filling of the globe. This delay measured in milliseconds is detected by a computer which provides a digital readout averaging the delay in eight artifact-free pulse cycles. However, a reduced ocular pulse amplitude in conjunction with a delay provides diagnostically valuable information in that it indicates poor collateral circulation to the eye in the presence of proximal arterial stenosis. Ear pulses (external carotid circulation) are simultaneously recorded using photoelectric cells clipped to the ear lobes. The timing differences between pulses obtained simultaneously from the ears and eyes have been empirically correlated with arteriographically determined stenosis and intraoperatively measured internal carotid blood flow. Kartchner and McRae report a ninety percent diagnostic accuracy and the ability to detect relative internal carotid flow reduction as low as twenty percent.

The diagnostic criteria in the interpretation of the OPG is as follows:

Ear-to-Ear Pulse Delay:

The normal range of the average ear-to-ear pulse delay is 0-30 msec. An average ear-to-ear pulse delay of 30-40 msec indicates a possible external carotid stenosis on the delayed side. If the delay is greater than 40 msec a probable stenosis is present as compared to the nondelayed side.

Eye-to-Eye Pulse Delay:

The normal range of the average eye-to-eye pulse delay is 0-5 msec. A delay of 5-10 msec indicates less than 20% flow reduction (an anatomic stenosis of less than 40%) of the internal carotid artery on the delayed side compared to the other side. A 10-15 msec delay indicates a "mild" (20-30%) relative flow reduction, 15-20 msec a "moderate" (30-40%) relative flow reduction, and a pulse delay greater than 20 msec means a "severe"

(more than 40%) relative flow reduction characteristic of a unilateral stenosis of 70-85% or more.

Eye-to-Ear Pulse Delay:

The normal range of the average eye-to-ear pulse delay is 0-30 msec. A pulse delay of 30-40 msec indicates a possible bilateral lesion. An average eye-to-ear pulse delay of more than 40 msec indicates a probable bilateral stenosis of the internal carotid arteries for "eye" delay or the external carotid arteries for "ear" delay.

False negative results are obtained for symmetrical internal and external bilateral disease.

False positive results are obtained in the presence of ophthalmic artery disease in the absence of comparable internal carotid disease.

Oculoplethysmography is not diagnostically effective in determining the existence of an ulcerated plaque which is not hemodynamically significant.

Long standing total internal carotid artery occlusion that is well collateralized can show a reduced delay (15-20 msec). A delay of 20 msec or more can be demonstrated in these patients with momentary compression of the superficial temporal artery.

Ophthalmosonometry (OSM): The use of the doppler directional flow probe may identify hemodynamically significant lesions in the internal carotid artery by detecting evidence of collateral (reverse) blood flow in supraorbital and frontal branches of the ophthalmic artery. The ophthalmic artery is the first major branch of the internal carotid artery. The supraorbital and frontal arteries are terminal branches of the ophthalmic artery. The supraorbital and frontal arteries share collateral networks with the temporal and facial branches of the external carotid artery. Pressure in the internal carotid system is normally higher and the blood flow in the supraorbital and frontal arteries is *away* from the orbit. If there is stenosis of the internal carotid the pressure in the system is lowered and the flow from the temporal and facial arteries produces a doppler signal of flow *toward* the orbit.²

If a directional doppler probe is placed over the supraorbital artery a sound and wave amplitude are noted. The examiner then occludes the ipsilateral superficial temporal artery by distal compression. In the normal patient, there will be augmentation of flow away from

the orbit. This flow augmentation will be seen as an increased wave form or a louder sound of increased pitch. Conversely, when there is reverse flow through the supraorbital branch, being supplied principally by temporal artery collateral in the case of internal carotid stenosis or occlusion, compression of the temporal artery will result in decreased flow through the supraorbital branch on its way to the ophthalmic artery and the cerebral circulation. The same relationship holds true for the facial frontal anastomosis.

This test is an extremely valuable screening tool for critical stenosis particularly in the asymptomatic patient who is being evaluated because of increased risk factors. It will not pick up the ulcerating plaque in the patient with TIAs. Studies have shown this type of testing to be 85% accurate in the patient with angiographically proven stenosis or occlusion. On the other hand, when the angiograms are normal OSM is 98% accurate with only 2% false-positives.² Therefore, it is very helpful in avoiding unnecessary arteriograms in those patients who have an asymptomatic bruit and a negative OSM.

As we have grown increasingly familiar with non-invasive testing of the cerebrovascular system we cannot help but be impressed with the ease, patient acceptance and clinical usefulness of this type of testing. Accurate, reproducible results require a considerable expenditure of time on the part of the nurse-technologist in learning to perform the test and on the part of the physician in learning to interpret them. On-site training is available at several institutions across the country for both physicians and nurse-technologists. This type of educational experience is absolutely essential. Once the non-invasive vascular diagnostic team becomes thoroughly grounded in the testing and interpretive techniques a high degree of accuracy can be obtained.

A recent case illustrates the usefulness of non-invasive cerebrovascular testing:

DB, a 60-year-old man with expressive aphasia from old cranial trauma presented complaining of vague mental confusion. He

had been seen by several physicians with these complaints who attributed his symptoms to his old injury despite change and progression, and who had prescribed various tranquilizers and anti-vertigo medications without effect. On physical exam there were no obvious signs of vascular disease. No carotid bruits were detectable with the ordinary stethoscope. Communication was difficult due to the patient's expressive aphasia. Non-invasive screening studies were ordered which revealed a marked pulse delay in the right ophthalmic artery on OPG exam and a reversal in the right supraorbital artery on OSM exam. The CPA was normal. This was interpreted as a greater than 85% stenosis of the right internal carotid artery. Carotid angiograms confirmed this diagnosis and a successful right carotid endarterectomy was accomplished with significant improvement in the patient's symptoms. With this patient's lack of a bruit (greater than 85% stenosis), the vague nature of his symptoms, and his history of old cranial trauma, it is highly unlikely that he would have received proper therapy had not non-invasive testing been available.

SUMMARY

Modern electronics are producing new avenues for exploring the human vascular system by non-invasive means. The use of sophisticated diagnostic tools such as the oculoplethysmograph, the carotid phonoangiogram, the unidirectional doppler and recorder (ophthalmosonometry), and the photoplethysmograph have been of invaluable aid to the authors in screening patients with suspected extra-cranial cerebrovascular disease. It is hoped that this type of testing will significantly lower the incidence of stroke, the third leading cause of death in the United States.

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711 Stanton L. Young Boulevard, Suite 705,
Oklahoma City, Oklahoma 73104.

Schistosomiasis in Oklahoma

RONALD G. WOODSON, MD
EVERETT R. RHOADES, MD

Schistosomiasis, with its varied manifestations, may be encountered by Oklahoma physicians. Diagnosis depends upon demonstration of ova in feces or tissues. Niridazole is beneficial in most cases.

INTRODUCTION

Schistosomiasis is one of the major infectious diseases of the world and, although not endemic to the United States, is being seen with increasing frequency in immigrants, foreign visitors, and American travelers returning from endemic areas. The great influx of foreign students enrolled in Oklahoma colleges and universities (over 7,300 in 1977¹) makes it likely that this disease will be seen even more often in this state.

Therefore, it is important that local physicians should have some familiarity with schistosomiasis and consider the diagnosis in symptomatic individuals with exposure to endemic areas.

EPIDEMIOLOGY

Schistosomes are trematode flukes which infect a wide variety of animals and birds. Only

three are known to infect humans: *Schistosoma japonicum*, *Schistosoma mansoni*, and *Schistosoma haematobium*. *S. japonicum* is endemic to the Philippines, China, Japan, and Celebes, with recently discovered foci in Laos, Thailand, Indonesia, and Malaysia.² *S. mansoni* is found in the Middle East, Africa, parts of South America (Brazil, Venezuela) and the Caribbean (including Puerto Rico). *S. haematobium* is endemic to Africa and the Middle East. There are estimated to be more than 200 million cases³ worldwide and the disease is endemic in over 70 countries.⁴

LIFE CYCLE

Adult schistosomes are one-two cm long and inhabit the hepatoportal venous system of humans. They produce 300-3000 eggs per day throughout their adult lives, which average five-ten years but may be as long as 30 years.⁵ These eggs are deposited in the walls of the intestines or urinary bladder and a considerable number are excreted in the feces or urine.

When the eggs are deposited in fresh water, they immediately hatch, producing small ciliated miracidia which must then find an appropriate snail host. (The absence of the correct snail host in the US explains our nonendemic status.) When a snail is found, the miracidia penetrate its body and during the following four-five weeks produce thousands of free-swimming cercariae which are liberated from the snail host.

The cercariae, if coming into contact with human skin within one-two days, will rapidly penetrate (in 1-10 minutes⁵) and migrate via the blood or lymphatics to the lungs. They then travel to the hepatoportal system where they

mature. After mating, the adult schistosomes travel upstream in the portal system to begin egg-laying. *S. japonicum* migrates up the superior mesenteric vein to the region of the small bowel and colon, *S. mansoni* travels up the inferior mesenteric vein to the left colon, and *S. haematobium* makes its way to the vesicular plexus of veins supplying the urinary bladder and pelvic organs.

PATHOGENESIS

The worms do not multiply in man, their life cycle requiring an intermediate snail host. Most infected individuals have low worm burdens and remain virtually asymptomatic. However, repeated infections often occur in endemic areas and many people build up enormous worm loads.

The manifestations of the disease are generally caused by immunologic reaction to the enormous numbers of eggs produced by the worms. Most of the eggs lodge in body tissues and remain there, only 40% managing to work their way through the bowel or bladder wall and being excreted.⁵ The eggs retained in the tissues produce enzymatic and antigenic secretions which induce a granulomatous, cell-mediated inflammatory reaction. This leads to tissue destruction and fibrosis, accounting for most of the manifestations of the disease.

CLINICAL MANIFESTATIONS

The first clinical symptom of schistosomal infection is often a local dermatitis secondary to skin penetration. This is unlikely to be seen in the US in association with human schistosomal infection but is sometimes seen in the Great Lakes region as a result of skin penetration by a variety of animal schistosomes, which die in the skin and produce an inflammatory reaction. This is known as "swimmer's itch" and is a self-limited condition.

There is a form of acute schistosomiasis, known as Katayama fever, which is rarely seen in this country. It occurs in individuals infected with large numbers of cercariae and coincides with initiation of egg production 20-60 days after skin penetration. It is a serum-sickness-like syndrome consisting of fever, malaise, lymphadenopathy, hepatosplenomegaly, and eosinophilia.³ Although usu-

ally a self-limited syndrome, disappearing within a few weeks, it can be fatal. It is most commonly associated with *S. japonicum*, but is occasionally seen with heavy *S. mansoni* infections.

Chronic schistosomiasis is the form most commonly seen in the US. Its clinical manifestations depend on the organ systems in which the eggs are deposited and the degree of inflammatory reaction produced. Intestinal involvement by *S. japonicum* or *mansoni* has classically been manifested by abdominal pain, diarrhea, and severe dysentery. Granulomatous colonic polyps have also been described in Egypt as a result of schistosomal infections.^{3, 6} However, recent studies have revealed that there are few specific symptoms for this disease and that most infected individuals remain relatively asymptomatic.⁵

Many eggs, instead of lodging in intestinal tissues, are carried via the portal system to the liver and initiate a chronic inflammatory reaction. The resulting granulomas and tissue fibrosis lead to pre-sinusoidal vascular obstruction of the hepatic portal system. The eventual result is portal hypertension with all its manifestations. Indeed, a major complication of chronic schistosomiasis is bleeding from esophageal varices. However, the prognosis in these patients is much better than in those in which bleeding varices are secondary to hepatic cirrhosis. This is because in schistosomiasis the liver function usually remains normal because of a compensatory increase in the arterial hepatic blood flow.

The lungs are also frequently involved in this disease. In individuals with heavy infections and marked portal hypertension, many eggs bypass the liver via portasystemic collateral vessels and are deposited in the lungs. A heavy infestation over a period of time can lead to pulmonary granuloma formation, fibrosis, and cor pulmonale.

The genitourinary tract is the site primarily involved in *S. haematobium* infections. The eggs are deposited in the bladder wall and the resulting inflammation often produces symptoms of hematuria and dysuria. Chronic granuloma formation and fibrosis result in decreased bladder distensibility and occasionally ureteral obstruction. This often leads to hydronephrosis and uremia. Wintrobe has reported an association between bladder cancer and chronic schistosomal infection.⁷

The central nervous system can also be in-

volved in schistosomal infections, although this is relatively rare. Brain lesions consisting of masses of eggs have been found in *S. japonicum* infections, and these patients often show signs of a space-occupying lesion or a generalized encephalitis. *S. japonicum* is considered an important cause of focal epilepsy in Asia and Japan. Spinal cord involvement may be seen in *S. mansoni* and *S. haematobium* infections and can produce a transverse-myelitis syndrome.⁵

DIAGNOSIS

In the United States, the diagnosis of schistosomiasis is most commonly made by the incidental finding of the characteristic eggs in urine, feces, or tissue biopsies. However, it should be suspected in anyone with unexplained hematuria, hepatosplenomegaly, or eosinophilia and who has a history of residence or travel in an endemic area.

Definitive diagnosis of schistosomiasis can be made only by demonstration of the eggs. *S. japonicum* and *S. mansoni* eggs can be found in stool samples by microscopic examination and should be quantitated by use of the Kato thick-smear technique in order to evaluate the intensity of the infection. If the stool exam is negative, the eggs may be found on rectal biopsy. *S. haematobium* eggs are excreted in the urine and since maximal egg output occurs around mid-day, urine specimens should be obtained at that time for microscopic exam. Although several serologic tests for schistosomiasis have been described, they have little diagnostic value because of their low specificity.⁵

TREATMENT

Not everyone infected with schistosomes needs treatment. Clinical disease is closely related to the intensity of infection and light infections seem to cause little or no symptoms and have almost no pathologic significance. Infected persons with egg counts of less than 50 eggs per gram of stool and with no signs or symptoms of disease should not be treated because the hazards of treatment are greater than those of the infection.³

Since the available drugs are toxic and often do not provide a parasitologic cure, the objective is to lower the worm load and relieve symptoms. The two drugs available in this

country can be obtained through the Center For Disease Control in Atlanta, Georgia. Niridazole is the current drug of choice for all forms of schistosomiasis and is administered orally in a dose of 25 mg/kg per day for five-seven days. Its side effects include nausea and vomiting, dizziness, frequent electrocardiographic T-wave changes, and occasional neurologic changes. Therefore, niridazole is contraindicated in patients with hepatic or neurologic disease. In these situations, stibocaptate (an antimonial) can be used but its cardiac toxicity is considerably greater than that of niridazole. Other complications of chronic schistosomiasis such as hydronephrosis, ascites, and esophageal varices may require other medical or surgical treatment.

Case No. 1

A 26-year-old Lebanese male student at the University of Oklahoma presented with a one-week history of hematuria and slight dysuria. He denied any previous episodes of hematuria or urinary tract infection, but did report being treated for gonorrhea one year previously. Physical examination and initial laboratory tests were unremarkable. Cystoscopy revealed an ulcerated lesion of the wall of the bladder, but a biopsy was not done. Repeated urinalyses finally revealed eggs of *S. haematobium*. The patient had traveled in both Lebanon and Ghana in the previous year. Antischistosomal therapy with niridazole (Ambilhar) was instituted.

Ronald G. Woodson, MD, was graduated from the University of Oklahoma College of Medicine, where he is presently taking his residency training in internal medicine. He is a member of the Alpha Omega Alpha and an associate member of the American College of Physicians.

Everett R. Rhoades, MD, was graduated from the University of Oklahoma College of Medicine, where he is now Professor of Medicine and Adjunct Associate Professor of Microbiology. Certified by the American Board of Internal Medicine, Dr Rhoades is a member of the American College of Physicians and the Infectious Diseases Society of America.

Comment: Outpatient follow-up revealed the resolution of the patient's urinary symptoms after treatment.

Case No. 2

A 56-year-old white male was admitted to the Veteran's Administration Hospital for colonoscopy in order to evaluate increasing diarrhea, weight loss, and left lower quadrant pain. The patient had had a left hemicolectomy six months previously for polyps, one of which showed carcinoma-in-situ on pathologic examination. During the colonoscopy rectal biopsies were taken which revealed numerous eggs of *S. japonicum*, many of which appeared calcified. The patient denied any travel outside the US since World War II, when he was stationed in the Philippines and Japan. It was thought that schistosomiasis was unlikely to be causing the patient's current problem. The next day, a stool sample revealed large numbers of *Giardia*. The patient was treated for Giardiasis and discharged much improved.

Comment: This patient undoubtedly harbored ova of *S. japonicum* for many years, since WW II. Chronic infections are not uncommon. Calcification of ova is a normal healing response.³ The association with polyps has been noted above.

Case No. 3

A 19-year-old Saudi Arabian male student had been in this country one year when he presented with terminal hematuria and suprapubic pain. He had had known schistosomiasis with intermittent hematuria for three years, but had never received treatment. The patient also reported exertional dyspnea of five years duration. Physical findings were unremarkable except for a possible accentuation of the second heart sound and a trace-positive stool guaiac. The CBC was completely normal, as was the SMA-18 with the exception of an SGOT of 45. Pulmonary function tests and EKG were also normal. Intravenous pyelogram with voiding cystogram revealed no abnormalities. Urinalysis showed numerous red blood cells and many eggs of *S. haematobium*. The patient was subsequently treated with niridazole for seven days with no ill effects other than slight headache and nausea.

Follow-up studies revealed complete resolution of the patient's urinary symptoms.

Comment: *S. haematobium* is the fluke which commonly affects the urinary tract.

Case No. 4

A 23-year-old Saudi Arabian female had been living in the United States with her husband, a student, approximately one year when she presented with a 14-month history of increasingly severe abdominal cramping preceding bowel evacuation and always relieved by defecation. She had noted mucous in her stool but denied diarrhea, constipation, hematochezia, or nausea and vomiting. Physical findings were unremarkable except for a palpable liver two cm below the right costal margin. The CBC revealed 7% eosinophils but was otherwise normal. SMA-18 was completely normal, as was the chest x-ray, liver-spleen scan, and EKG. Examination of a stool specimen revealed the eggs of *S. mansoni*. The patient was subsequently treated with niridazole (Ambilhar) for seven days without complications.

Comment: The satisfactory response of this case is similar to others treated in our institution.

CONCLUSION

Schistosomiasis is one of the most common infectious diseases in the world and is a major health problem in many countries. Although it cannot be acquired in the US, increasing international travel has resulted in more and more cases being recognized in this country.

In recent years there has been a sizeable influx of persons from endemic areas into Oklahoma, often for the purpose of attending college. At any given time, this group approximates the population of a small town. Because many of these persons are traveling under education permits, there is a more or less continual addition to the pool of possible cases. It is likely that Oklahoma physicians will be called upon to recognize and treat these imported cases for several years in the future.

The varied manifestations of the disease, as reflected in the cases presented, present a diagnostic challenge which should be considered in the evaluation of persons who have resided in areas where schistosomiasis is endemic.

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Tetanus

TIMOTHY A. LAMPHIER, MD

Tetanus still causes one death a week in the United States. Its diagnosis is entirely clinical. The signs, symptoms, laboratory and treatment should be monitored.

Tetanus is a completely preventable disease and yet it causes one death per week in the United States where the mortality rate exceeds fifty percent. Throughout the world it accounts for almost 500,000 deaths annually.

Clinical tetanus is an acute central nervous system (CNS) intoxication manifested primarily by neuromuscular dysfunction. The causative organism, *Clostridium tetani*, causes no tissue damage of any significance. *C. tetani* are slender, spore forming, gram-positive bacilli which elaborate a toxin — in low oxygen tension — which becomes fixed to the CNS. All of the manifestations of the disease are due to the exotoxin that the tetanus bacillus elaborates. After botulism toxin, tetanus toxin is the most powerful poison known to man. It is estimated that as little as one milligram is lethal for a human being.

Tetano-spasmin acts on four areas: (1) Motor nerve end plates in skeletal muscles, (2) the anterior horn cells of the spinal cord, (3) the

brain stem, and (4) the sympathetic nervous system.

In the United States, tetanus occurs most frequently among the very young (neonatal tetanus) and the elderly. There are three distinct age groups: newborns in whom tetanus infection is most commonly associated with the periumbilical area; in the 30-to-40-year-old age group because of addicts injecting drugs subcutaneously; and in the 50-year-and-older group who have diminishing titers of antibody or who are inadequately immunized.

C. tetani may gain entry to the body through virtually any break in the skin. Seventy-five percent of tetanus-associated injuries are sustained in the home. Puncture wounds and lacerations account for about one-third and one-quarter, respectively, of the injuries associated with tetanus. No wound or obvious source of entry is found in about seven percent of patients. Abrasions, crushing injuries, and other wounds constitute an additional one-quarter of the portals of entry. A few cases follow abortion or parturition.

There has been an increase in incidence among addicts and after lawn mower injuries in this country. Virtually any wound may be infected because *C. tetani* is so widespread in nature. It has been isolated from soil, dust in streets, houses, operating rooms, and from fresh and salt water. The spores are ubiquitous and occur in the feces of humans and animals. The clostridia are anaerobic, gram-positive bacilli and occur in tissues as well as in culture. *C. tetani* develop round terminal spores



GRAM STAIN of purulent exudate of a patient with severe tetanus. Note tennis-racket-like gram-positive rod (*Clostridium tetani*) in the microphotograph.

(TERMINAL SPHERICAL SPORE)

Photo credit to: Macmillan Science Co., Inc., Chicago, Illinois 60620 U.S.A.

that resemble drumsticks or tennis rackets. (See photo above)

Unfortunately *C. tetani* is isolated from wounds causing tetanus in only about a third of patients. This is because it may be present in very small numbers and yet produce sufficient toxin to cause disease. In other patients, the organism may be overgrown by other bacteria in culture.

Tetanus toxin is elaborated only by the proliferating cells of *C. tetani*. The spores that gain entry to tissues at the time of injury cannot germinate unless the oxidation-reduction potential is low. Such local anaerobic condition is facilitated by tissue necrosis, foreign bodies and simultaneous infections by aerobic organisms.

The total time required for germination of the spores, production of toxin, and migration of the toxin to the central nervous system, (ie, the time from injury to the first symptom or the incubation period) is usually 3-to-21 days.

The diagnosis of tetanus is entirely clinical. There are two signs of clinical tetanus. The first is *muscle rigidity* which affects mainly three muscle groups: (a) the masseters, resulting in trismus, (b) the abdominal muscles and, (c) the erector muscles of the spine. The second sign of tetanus is *muscle spasm*. This is not continuous during the illness. Most frequently, the muscles of the mouth and face are involved by spasm causing the grotesque expression

known as risus sardonicus — a fixed sardonic smile.

Early symptoms and signs of tetanus are irritability, pain and tingling at the site of inoculation, restlessness, headache, low-grade fever, hyperreflexia, spasm of the muscles of the head and neck areas. The most characteristic presenting symptom is trismus (lock-jaw) or the inability to open the mouth because of spasm. A convulsion is the initial symptom in about twenty percent of patients. Trismus may be present with or replaced by restlessness, irritability, neck stiffness, rigidity of abdominal muscles or difficulty in swallowing. The patient is alert and awake during the entire course of the illness. With convulsions the glottis and respiratory muscles go into spasm and the patient is unable to breathe. Asphyxia and cyanosis follow.

Tetanus intoxication resembles that of strychnine poisoning. The toxin acts on inhibitory synapses in the central nervous system and interferes with the release of inhibitory neurotransmitters. In the absence of inhibitory stimuli, opposing muscle groups contract, resulting in spasm and rigidity . . . The toxin binds rapidly and irreversibly to the nervous tissue and once bound, cannot be neutralized with antitoxin.³

Typical tetanic seizures may supervene, and are characterized by sudden bursts of tonic contractions of many muscle groups causing marked opisthotonus (back muscles) and abduction of the arms with the fists clenched over the thorax and extension of the lower extremities and intense sweating.

The goal of treatment is to prevent death from asphyxiation or a complication, primarily infection, until the toxin that is fixed to nervous tissue has been metabolized. The most important aspect of therapy is supportive care. Mild cases are managed with a combination of muscle relaxants.

Patients with tetanus of moderate severity have dysphagia and require tracheostomy with insertion of a cuffed tube to prevent aspiration of their own oral secretions. Patients with se-

A graduate of Boston University School of Medicine, Timothy A. Lamphier, MD, has been certified by the American Board of Surgery. Dr Lamphier is a Fellow of the International College of Surgeons and a member of the Royal Society of Medicine (England).

vere tetanus have spasms that compromise respiration and are abolished by total paralysis with tubocurarine.

The so-called specific aspects of therapy are secondary to supportive care. Their aim is to prevent formation of additional toxin and neutralize some of that toxin which has been formed. Antitoxin is given as soon as the diagnosis is made. Tetanus immune globulin (human TIG) is administered in a total dose of 3000 to 6000 units given in three equal portions in three sites intramuscularly. TIG does not penetrate the blood-brain barrier and therefore, it has no effect on toxin already fixed to nervous tissue. To rely solely on immunoprophylaxis at the time of injury is foolhardy. An attempt is made to eradicate all *C. tetani* from the wound by debridement as soon as the antitoxin has been given.

The keystone to the prevention of tetanus is universal immunization in childhood with four doses of tetanus toxoid given at approximate intervals. (Table 1)

Table 1—Primary and maintenance immunization for tetanus*

Age group	DTP†	TD‡
Infants:		
2 months	X	
3 months	X	
4 months	X	
15 months	X	
3 to 6 years	X	
every 10 years		X
School children and adults:		
1st dose		X
4 to 6 weeks		X
6 months to a year		X
every 10 years		X

*From Recommendations of Public Health Service Advisory Committee on Immunization Practices, 1972.

†DTP=diphtheria, tetanus, pertussis toxoids.

‡TD=tetanus, diphtheria toxoids, adult type.

Manufacturer's package inserts specify amounts of toxoids to be given

(From the Department of Health, Education and Welfare, Public Health Service, Center For Disease Control.)

TETANUS IMMUNOPROPHYLAXIS SCHEDULE:

1. Prevention of Tetanus

A. Children two-months-to-six-years of age.

1. Agents recommended: Diphtheria and tetanus toxoid combined with pertussis vaccine (DPT) (preferred), tetanus diphtheria (DT), or mineral-absorbed toxoid (T).
2. Method suggested: Three doses given intramuscularly four-to-six-weeks apart (*primary series*), reinforcing dose one year later (*basic series*). *Interval booster*: Tetanus and diphtheria toxoid, adult type (TD), (preferred), or mineral-absorbed tetanus toxoid (T) currently recommended every ten years thereafter.

B. Children more than six years of age and adults.

1. Agents recommended: Tetanus and diphtheria toxoid (TD) preferred, mineral-absorbed toxoid (T).
2. Method suggested: Two doses of either agent subcutaneously or intramuscularly four-to-six weeks apart (*primary series*). Third reinforcing dose six-to-twelve-months later (*basic series*). *Interval booster*: currently recommended every ten years thereafter.

Complete debridement of the wound is probably the most important aspect of tetanus prophylaxis. It is not known if the administration of antibiotics is of value.

Dysphagia is managed by the frequent suction of saliva to avoid (1) glottic spasm and (2) aspiration pneumonia. If necessary, oro-tracheal intubation under pentothal anesthesia and succinylcholine administration should be carried out and tracheostomy when indicated.

The prognosis is related to a variety of factors such as wound location and age, and the rapidity of onset of symptoms. The fatality rate is over sixty percent if the incubation period is less than ten days. If it is greater than ten days, the fatality rate is thirty-five percent. When the symptoms consist only of mild spasms, the fatality rate is twenty percent. When generalized convulsions occur, the fatality rate is seventy-five percent. Contaminated lesions about the head and face are more dangerous than those on other parts of the body.

A suggested protocol for treatment would include:

1. Hyperbaric oxygen therapy.

2. Keep patient in a dark room avoiding all noise and light; minimize all sensory stimuli.
3. Maintain a constant temperature in the hospital room.
4. Keep a special nurse in constant attendance at all times.
5. Give 6000 units of human TIG intramuscularly into multiple sites. If the injury is in an extremity, give at least one of these injections into that extremity. Massage all injection sites and apply heat to the areas of administration.
 - a. If human TIG is not available and the patient is not sensitive to horse serum, give 50,000 units of equine antitoxin intravenously keeping epinephrine 1:1000 solution available for immediate intravenous use.
 - b. Always perform and conclude intradermal skin testing for horse serum sensitivity *prior* to administration of equine antitoxin.
 - c. On the first day give 50,000 units of tetanus antitoxin intramuscularly and an additional 10,000 units injected around the wound. From that day forward give 5,000 units intramuscularly on a daily basis.
 - d. Give an injection of 1.0 cc of tetanus toxoid.
6. Control seizures and tetanospasms and provide muscular relaxation as follows:
 - a. Intravenous pentothal or Thorazine 100 mg every four hours intravenously or diazepam intravenously.
 - b. Meprobamate may be substituted and given intramuscularly every four hours in doses of 400 mg.
 - c. When indicated, give Tubocurarine 1.0 mg in 100 cc of five percent glucose in water every 30-to-60 minutes.
 - d. Gallamine (Flaxedil) and curare can control convulsions while sparing respiration.
7. Always keep injured parts elevated. The amount of tissue damage determines the duration of elevation.
8. Avoid all peroral fluids, feedings and medications.
9. Maintain adequate airway.
10. Order mucolytic agents to liquify sputum.
11. Give high doses of penicillin, tetracycline or cephalothin.
 - a. The dosage of penicillin should be at least 1,000,000 units of the sodium or potassium salt every four hours or 10,000,000 units by continuous intravenous drip the first day of treatment. Continue 1,000,000 units of penicillin every six hours for a total of seven days.
 - b. If the patient is allergic to penicillin, tetracycline is given intravenously every six hours for a total of seven days.
12. For pain give Demerol 100 mg every three hours as needed.
13. After a delay of two hours, surgically debride the focus of infection that is producing the toxins.
 - a. Always clean the wound with hexachlorophene and running water.
14. Perform tracheostomy, if indicated or place endotracheal tube in neonates.
15. Maintain caloric, fluid, and electrolyte balance with intravenous fluids.
16. Nasogastric tube-feeding or gastrostomy feedings are provided during the first three or four weeks.
 - a. Keep a long nasogastric tube in the jejunum for this feeding.
 - b. When feeding via a nasogastric or gastrostomy tube, give 50 cc of liquids at hourly intervals from 6:00 AM to 10:00 PM.
17. Maintain an indwelling Foley catheter in the urinary bladder to aid in monitoring renal function, especially in curarized patients.
 - a. Check constantly for urinary tract infection.
18. Use an automatic respirator to deliver properly heated humidified air containing forty percent oxygen.
 - a. Never detach the tube of a respirator for longer than twenty seconds or there may result a dangerous degree of hypoxia.
 - b. Obtain arterial blood gases and blood pH determinations every two or three days.
19. If anemia is present or develops, give infusions of whole blood or packed red cells.
20. If the patient is curarized, instill eye drops at regular intervals and use eye shields to keep the eyes moist.
21. Maintain foot-boards to prevent contractions of leg muscles.
22. Avoid pulmonary emboli in the recovery stage by giving heparin intravenously.
23. If paralytic ileus develops, order:
 - a. nothing by mouth
 - b. intermittent gastric drainage

- c. an anticholinesterase agent . . . eg, Bethanechol
 - 24. Frequent laboratory studies should include:
 - a. CBC including hematocrit and hemoglobin
 - b. Sedimentation rate
 - c. Urinalysis
 - d. Blood chemistry with electrolyte profile and creatinine level
 - e. Plasma catecholamine and catecholamine excretion level
 - f. Gram stains and cultures (aerobic and anaerobic)
 - g. Blood gases
 - 25. Obtain daily chest x-rays.
 - 26. Maintain a flow sheet noting:
 - a. Rigidity
 - b. Facial trismus (lockjaw)
 - c. Laryngospasm (glottic spasm)
 - d. Risus Sardonicus (sardonic smile)
 - e. Sustained clonus
 - f. Hypertension
 - g. Tachycardia
 - h. Opisthotonos
 - 27. Check frequently for pulmonary infection
- Within four weeks most patients can be transferred from the Intensive Care Unit to a general care area of the hospital.

Table 2 describes the guidelines for tetanus prophylaxis in wound management.

Remember that positive cultures can be obtained in only twenty-five percent of cases. Horse serum antitoxin is cleared from the patient's tissues in 8-to-15 days whereas human TIG has a half-life of 25 days.

All pregnant women should have received or should receive their basic immunizing series, preferably, but at least the primary series, con-

Table 2—Tetanus immunoprophylaxis*

Immunization history (doses of tetanus toxoid)	Clean, minor wounds		All other wounds	
	TD†	TIG††	TD	TIG
Uncertain	+	—	+	+
0 to 1	+	—	+	+
2	+	—	+	+ ¹
3 or more	+ ²	—	+ ³	—

*From Recommendations of Public Health Service Advisory Committee on Immunization Practices, 1972.

†TD=tetanus and diphtheria toxoid, adult type.

††TIG=tetanus immune globulin of human origin; the usual dose is 250 units.

¹Only if wound more than 24 hours old.

²Only if more than 10 years since last dose.

³Only if more than 5 years since last dose.

(From the Department of Health, Education and Welfare, Public Health Service, Center For Disease Control.)

sisting of two injections of TD or T administered 4-to-6 weeks apart, before the third trimester. If this is accomplished, postpartum and neonatal tetanus should be prevented.

SUMMARY

When a patient develops tetanus, the treatment goals are:

1. Neutralization of unbound toxin.
2. Prevention of further toxin production.
3. Support of the patient until effects of bound-toxin diminish.
4. Adequate immunization.

"An ironic feature of clinical tetanus is that the patients do not become immune by virtue of having had the disease."⁴

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117 Aliso Drive, Palm Springs, California 92262



News From
The Oklahoma State
Department of
Health

In the State of Oklahoma, measles is no longer primarily a disease of younger children. Instead, it is affecting mainly the junior and senior high school populations.

In 1963, the measles vaccines, both live and killed virus, were licensed and recommended for the nine-month to nine year-old-age group. At the time of licensure of the live Edmondston B Strain, it was known that this vaccine caused febrile reactions in many children. To counteract this reaction, a prescribed amount of gamma globulin was recommended to be administered in conjunction with the vaccine. In 1965, a further attenuated vaccine was licensed. The reaction rate was extremely low and thus, gamma globulin was not recommended for this strain of vaccine.

In 1968, it became apparent that those children immunized prior to their first birthday, with or without gamma globulin, did not have antibody levels high enough to protect them. Thus, the US Public Health Service and the Oklahoma State Department of Health recommended *that all children immunized prior to 1968 should be candidates for re-immunization* to assure protection against

measles. Many parents, however, did not respond to this recommendation and thus, both nationally and here in Oklahoma, outbreaks of measles are found in the junior and senior high school population. Over 80 percent of those children experiencing measles, with a history of measles immunization, were immunized prior to their first birthday.

Presently, there is a national goal to eliminate measles from the environment of the United States, by October, 1982. For Oklahoma to attain its part in this program, unceasing efforts must be made in the identification of the unimmunized and those inadequately immunized and immunize or re-immunize these individuals as early as possible, with the primary effort directed toward the immunization of infants fifteen months of age. □

COMMUNICABLE DISEASES IN OKLAHOMA FOR MAY, 1979

DISEASE	May 1979	May 1978	April 1979	Total To Date	
				1979	1978
Amebiasis	2	3	—	7	15
Aseptic Meningitis	7	2	2	13	19
Brucellosis	—	—	—	—	1
Encephalitis, Infectious	2	1	2	6	6
Gonorrhea (Use Form ODH-228)	1012	1196	943	5212	5011
Hepatitis A	19	25	21	97	156
Hepatitis B	5	14	12	35	61
Hepatitis Unspecified	18	13	7	52	88
Measles (Rubeola)	2	3	17	22	11
Meningococcal Infections	3	2	—	19	15
Pertussis	1	—	—	3	6
Rabies (Animal)	30	28	23	114	99
Rocky Mountain Spotted Fever	3	8	—	3	8
Rubella	4	—	2	22	9
Rubella (Congenital)	—	—	—	—	—
Salmonellosis	29	32	17	90	80
Shigellosis	20	32	5	77	112
Syphilis (Use Form ODH-228)	7	3	5	42	36
Tetanus	—	—	—	—	1
Tuberculosis	20	27	23	147	142
Tularemia	—	—	—	—	—
Typhoid Fever	—	1	—	—	2

Professional Liability Insurance

An interview with C. Alton Brown, MD, and Rod Frates regarding a proposed OSMA-owned company to provide professional liability coverage to physicians.

Journal: The OSMA has told us for years that Oklahoma physicians pay the lowest insurance rates in the country. If this is true, why is our association considering self-insurance?

Dr Brown: The OSMA has had and still enjoys the lowest occurrence insurance rates in the country; however, because we are the best does not mean we can't be better. Our rates should fairly reflect our losses in Oklahoma, and these losses may well indicate a lower rate than is currently being paid. If our losses bear this out, a captive company will be seriously considered.

Actually, though, the association is considering a captive insurance company, but not self-insurance. A captive carries adequate reserves, buys reinsurance and is subject to inspection by the Oklahoma Insurance Commission. It is much safer and more secure than self-insurance.

Journal: Why does the OSMA think it can administer an insurance company and provide coverage for fewer dollars than the people who are in business to do just that?

Dr Brown: We have studied the Hospital Casualty Company here in Oklahoma as well as other captives in this state and elsewhere. By eliminating the bureaucracy of large in-

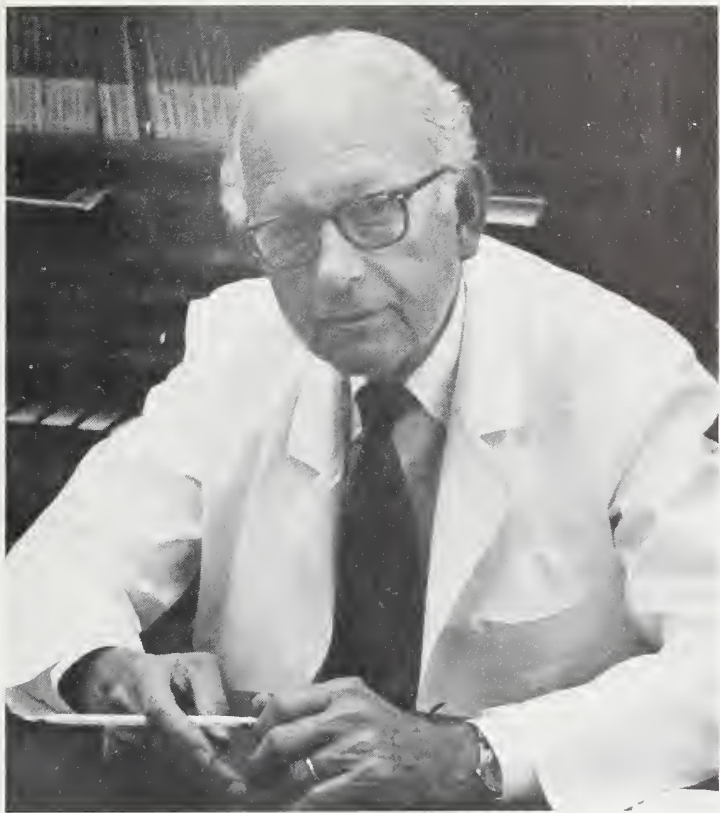
surance companies, we could achieve a savings of at least 10 percent and perhaps as high as 20 percent.

Journal: Naturally most doctors probably would feel more comfortable with insurance provided by a large international multi-billion dollar company. What is the chance a captive insurance company would be successful?

Mr. Frates: We have proposed and the plan is to adopt a captive insurance company incorporated under the laws of the State of Oklahoma. It will be more than adequately financed. It will be reinsured above \$100,000 per occurrence through the General Reinsurance Company, the largest and oldest of the major reinsurers. The success of a captive company formed and funded according to the statutes of this state and properly reinsured and well-managed is assured.

Journal: I understand from the enabling resolution passed by the OSMA House of Delegates that participants can be assessed in the amount of up to \$2,000.00. I also understand that this will be collected on an installment basis one-third per year for three years. Assuming the captive company is formed to provide insurance in 1980, when would the first installment be due?

Mr. Frates: The first installment on the assessment will be due in 1980. Subsequent installments will be due in 1981 and 1982. Keep in mind that the assessment plus the premium is projected not to exceed whatever renewal premium is required by the com-



C. Alton Brown, MD

mercial insurance market. The captive insurance company premium and the assessment will probably be billed at the same time.

Journal: Since this is an OSMA project, will non-members be allowed to participate? If so, will they also pay an assessment and how much? Will an OSMA member be guaranteed coverage through the OSMA program?

Dr Brown: Let's divide this question into A and B.

A. Will non-members be allowed to participate? If so, will they pay an assessment?

It will be up to the Board of Trustees of the Oklahoma State Medical Association to decide whether or not non-members will be allowed to participate. In any event, it is anticipated that all who are allowed to participate will be required to pay their fair share of the cost of forming the company.

B. Will an OSMA member be guaranteed coverage under this OSMA program?

All participants will be required to meet normal underwriting standards. Underwriting will be as fair as possible and done by a committee of peers who are selected by the democratic process set up by the association.

Journal: Back to the cost of starting up the program. Will the assessment be refundable? Will it be tax deductible?

Dr Brown: The assessment will not be refundable. The question of tax deductibility will

be one for each individual physician's accountant to answer.

Journal: During the first three years, will participants pay an assessment and insurance premium?

Dr Brown: Yes, but the sum total of the assessment and the insurance premiums will not exceed what a commercial insurance policy would cost you if commercial insurance were continued. In fact, in all likelihood, the total of both will be less.

Journal: Are the insurance premiums tax deductible? Who will own the company? Who and what events will determine whether or not the captive insurance company is formed?

Dr Brown: Again this is really three questions:

A. Are the premiums tax deductible? Yes.

B. Who will own the company? The Oklahoma State Medical Association will own the company.

C. What events will determine whether or not the captive insurance company is formed? The insurance company will be formed if the best bid by the commercial market exceeds the combined projected cost of the premium and the assessment for the year 1980.

Journal: If the decision is made to form the company, how long will it take to get everything operational?

Mr. Frates: Only a matter of weeks will be required for the company to become opera-



C. L. Frates

tional as all the background work has been done.

Journal: What type of insurance will the captive company provide? We have all heard pros and cons for both claims-made policies and occurrence policies. Please explain each and indicate which would be available through the OSMA program.

Mr. Frates: Initially the company will provide professional liability insurance and premises liability insurance. Only occurrence policies will be written. The occurrence policy is vastly superior to the claims-made policy. The claims-made policy covers only claims which are reported in the year the policy is in force. Any glowing report you may have heard about the claims-made policy originates from an insurance company from the seller, not the buyer. The occurrence policy covers all claims which occur in the year the policy is in force. The physician pays for the insurance for that year only once and is covered forever after for losses which originated from his activities in that year.

Journal: It would seem that management of the company and underwriting and investigating of claims largely determine whether or not the company will be successful. Who will handle this for the OSMA captive?

Dr Brown: C. L. Frates & Co. is the planned administrator for the OSMA captive. They already administer many successful captives. Tom Haynes, who heads their claims department, has successfully handled professional liability claims for the Oklahoma State Medical Association for the last 12 years. C. L. Frates & Co. currently administers the OSMA professional liability program, issues the policies and supervises the underwriting so that the entire mechanism for the insurance company is already in place.

Journal: I understand the defense attorneys we are currently using have an outstanding win/loss ratio. If OSMA switches to a captive program, will we also change attorneys? If so, who will they be?

Dr Brown: The OSMA and C. L. Frates & Co. agree that attorneys used in the past should continue to defend the association. The attorneys for the past 12 years have had an excellent track record in this highly

specialized field of law and they may be relied upon to protect the assets of the association captive as they have protected the commercial insurance industry in the past. The firms are Short, Barnes, Wiggins, Margo and Adler of Oklahoma City and Best, Sharp, Thomas, and Glass of Tulsa.

Journal: If OSMA forms a captive insurance company, will there be any other coverage available to physicians?

Mr. Frates: Lloyd's of London currently provides the only other insurance market for Oklahoma physicians. This market will continue to be available in the future. □

New British Drug Fights Breast Cancer

A newly developed British drug has proved effective in breast cancer that has spread to other areas of the body, says a report in the July 6 *Journal of the American Medical Association*.

The drug is tamoxifen citrate. Trade name in Great Britain is Nolvadex. There is no comparable US product.

Tamoxifen was tested on 50 patients at the M.D. Anderson Hospital and Tumor Institute, Houston. These were breast cancer patients in whom conventional endocrine therapy and combination chemotherapy (drugs) had failed, says Sewa S. Legha, MD. In all of them the cancer had spread.

Tamoxifen achieved a significant palliation of disease in 50 percent of patients with far-advanced breast cancer that had failed to respond to conventional treatment, Dr Legha declares.

"Since this result was obtained at the cost of practically no side effects, the results are indeed remarkable."

There also are indications that tamoxifen will be useful in management of metastatic breast cancer in many different phases of the disease, says Dr Legha. It can safely be considered the best choice for postmenopausal women who are likely to respond to hormonal therapy. It will provide opportunity for another remission in patients who already have been treated with other methods.

The research was supported in part by the National Cancer Institute. □

Endowment Program Short of Goal

To date nearly 200 OSMA members have signed up to take part in the voluntary program to endow a chair in continuing medical education at the University of Oklahoma College of Medicine. Still, however, the endowment collection is well short of its goal . . . a total of \$40,805 has been collected, and the first-year goal was to collect \$250,000.

Last year OSMA members embarked upon a program to collect a total of \$750,000 over a three-year period. Each OSMA member was asked to contribute \$600 to this endowment program over this period. Interest collected on the fund was to be used to finance the cost of a professorship in continuing medical education.

At this point collections on the fund have fallen short of the goal, although it is hoped that additional enrollees will make up the difference next year. Shown below is a county by county report on collections to date.



OSMA President William M. Leebron, MD, is shown here presenting a list of endowment contributors to Tom Lynn, MD, head of the OU College of Medicine, Oklahoma City. Also shown from left to right are Marvin K. Margo, MD, immediate Past-President and Lee Teague, director of development for the OUHSC.

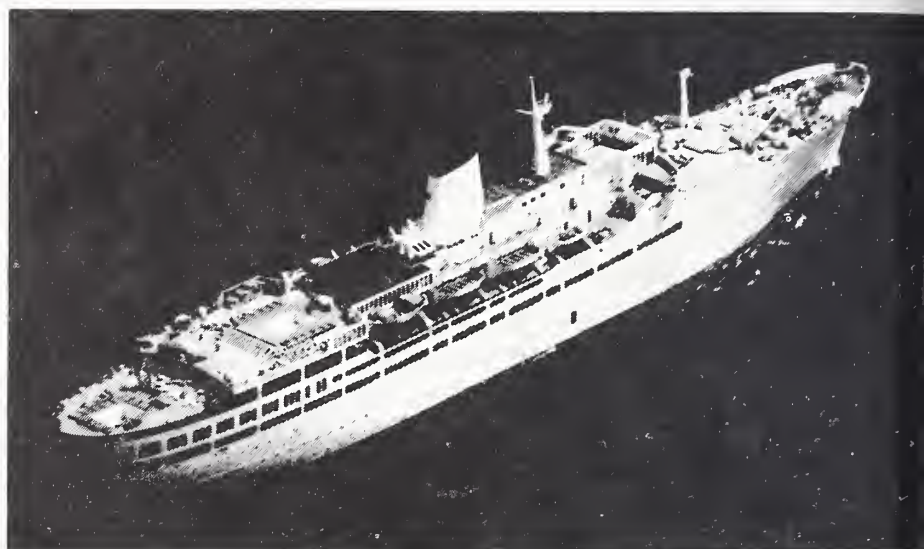
OSMA Gradute Medical Education Endowment Program Contributions as of June 12, 1979

County Society	\$30	\$75	\$100	\$150	\$200	\$400	\$600	Total
Beckham					1			200.00
Canadian					2			400.00
Carter-Love-Marshall					1			200.00
Choctaw-Pushmataha				2				300.00
Cleveland-McClain					2			400.00
Comanche-Cotton-Tillman					2			400.00
Custer					1			200.00
East Central					7			1,400.00
Garfield					4			800.00
Logan					2			400.00
Northwest Counties					11			2,200.00
Okfuskee			2		4			1,000.00
Oklahoma	1	1			128	1	5	29,105.00
Okmulgee					4			800.00
Pottawatomie					1			200.00
Stephens					3			600.00
Tulsa			2		5		1	1,800.00
Washington-Nowata					2			400.00
TOTALS	1	1	4	2	180	1	6	\$40,805.00

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Carter Health Plan

On June 12 an outline proposal of a national health plan was presented as Phase 1 of President Carter's plan for universal and comprehensive coverage for all Americans.

The new program contemplates a combined Medicare and Medicaid administrative structure and expanded benefits, to be federally administered as HEALTHCARE, and mandates employment-based catastrophic health insurance for employees under an EMPLOYER GUARANTEE.

Cost of the proposal, to become effective in 1983, is estimated at \$23-25 billion.

THE HEALTHCARE PROGRAM, for the aged and disabled and for low-income individuals and families, would be federally administered as a single program. Claims processing and reimbursement now performed by the State (under Medicaid) would be taken over by the federal government and handled through private fiscal intermediaries. Benefits would be uniform and comprehensive, including (except for limits on mental health services) unlimited inpatient hospital care, unlimited physician services, 100 skilled nursing days and 100 home health visits in a year. Present deductibles and coinsurance for medical services for the aged (as provided in Medicare) would not change, but cost-sharing would be limited to \$1,250 per person per year. Benefits for the low-income population would be fully subsidized.

Liberalized rules of eligibility would provide HEALTHCARE coverage for an additional 14.5 million persons with low income. In addition to those already covered, all persons with incomes at or below 55 percent of the poverty level would be eligible; and for persons with a higher income, eligibility could be obtained through a spend-down provision (*ie*, income would be reduced by the amount of expenditures for medical expense in determining whether the income test was met).

HEALTHCARE would also offer insurance at a subsidized premium rate to the unemployed and the part-time employed, and to the nonaged and the nonpoor, who would not qualify for coverage under HEALTHCARE or the EMPLOYER GUARANTEE. Such persons could purchase from HEALTHCARE protection against the costs of major illness, limiting out-of-pocket expenses to \$2,500. However, prenatal, delivery and first-year baby care would be furnished without cost-sharing.

THE EMPLOYER GUARANTEE would mandate on employers the provision of *catastrophic health insurance* covering all fully employed persons and their families. Such insurance could be furnished through a private insurance company or plan (including HMOs), or an employer could choose to buy into HEALTHCARE. Coverage would trigger after \$2,500 of out-of-pocket expense had been incurred; except that there would be no cost-sharing for prenatal and delivery services for pregnant women or preventive and acute care services provided to an infant during its first year.

The mandated insurance would cover the employee, his spouse, and dependents until age 22 (26 if in school). It would continue for 90 days after termination of employment, or for 90 days after death of the worker.

FINANCING

The method of financing the HEALTHCARE coverage for the *aged and the disabled* would not change from that in Medicare. Financing would be provided through the present Medicare payroll tax, premiums on medical coverage (as in Medicare Part B), and general revenues.

Cost of the HEALTHCARE program for *low-income beneficiaries* would continue to be shared by the federal and state governments. The state share would approximate what it would otherwise have paid under Medicaid. For the first two years of the program, some \$2 billion in relief would be distributed to the state and local governments.

The total of premium costs for mandated health insurance for *employed persons* would be paid by employers and employees. The employer's share would be not less than 75 percent.

A *federal subsidy* payable out of general revenues would apply to reduce the costs to employers experiencing excessive payroll costs due to the insurance mandate. It would provide a full subsidy to employers of premium costs in excess of five percent of payroll.

Insurance offered by HEALTHCARE to the *nonaged* and *nonpoor* would be financed by payment of premium and general revenues.

REIMBURSEMENT

The proposal assumes the enactment of Hospital Cost Containment legislation that would

establish conditions for reimbursing hospitals. (Such legislation, now pending, would fix a percentage limit on increases of hospital revenues and expenditures.)

A HEALTHCARE fee schedule, based on an average of Medicare charges in a state, would limit physician reimbursement for services to persons covered under that program. Physicians could not charge — or be reimbursed — above the fees established in that schedule. Providers would bill HEALTHCARE, not the beneficiary.

The HEALTHCARE fee schedule would be advisory only with respect to services provided under the EMPLOYER GUARANTEE. Use of the fee schedule by the insurer would be voluntary. Names of physicians who agreed to accept the insurance plan's reimbursement as full compensation for their services would be published.

STATE'S ROLE

Certification and licensure of facilities and personnel and the regulation of private health insurance would continue as state functions. States would also continue to determine eligibility for those who qualify for HEALTHCARE through categorical grant programs, while the federal government would make eligibility determinations for others with low income who might be entitled to HEALTHCARE.

Long-term care would continue as a separate program under State administration, and would be financed at present Federal-State matching rates.

From AMA's Legislative Digest. □

Laetrile Found Useless And Fatally Dangerous

Laetrile not only does not cure cancer, it also can kill the user.

These were the findings of a scientific research study of laetrile made at Evanston (Illinois) Hospital and Northwestern University Medical School, Chicago.

Janardan D. Khandekar, MD, conducted laboratory research study in which groups of rats were fed laetrile, also known as amygdalin, to determine whether the substance would affect the tumors with which the animals had been infected.

In amygdalin-treated rats, there was a progressive *increase* in size of the tumors. And in the three study groups, death rate from cyanide poisoning was 30.8 percent, 44.1 percent, and 56.8 percent, Dr Khandekar says.

Dr Khandekar points out that several states, in response to vigorous lobbying efforts, have legalized use of laetrile. The US Supreme Court recently in effect refused to legalize the substance on a national level, and relatively little is available in the United States. Many cancer sufferers have gone to clinics in Mexico for laetrile treatment.

The protagonists of amygdalin use have claimed that the substance is "innocuous," and therefore, patients with "terminal" cancer should not be deprived of its use. The Evanston studies show that the substance is by no means innocuous, that it can kill. Laetrile is made from the pits of apricots and other such fruit. These pits are known to contain cyanide. A number of deaths from cyanide poisoning from accidental overdose of laetrile have been reported.

"These findings seriously question the use of amygdalin in clinical medicine under any circumstances," he concludes. □

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Pharmacists Seek Prescription Blank Changes Again

Members of the Oklahoma Pharmaceutical Association have once again approved resolutions calling upon regulations requiring that prescription blanks used in hospitals be imprinted with the name and drug enforcement administration number of the prescribing physician. Pharmacists say that when prescription blanks without this information are used, it is sometimes difficult to determine whom to contact if there are questions about the prescriptions. Oklahoma pharmacists have approved similar resolutions on several different occasions.

In other action pharmacists also once again approved a resolution calling upon physicians to write only one prescription per prescription blank. According to the Oklahoma Pharmaceutical Association prescribing more than one drug on a prescription blank causes administrative problems as well as problems in conforming with federal and state regulations pertaining to prescription records.

The Oklahoma Pharmaceutical Association also voted to oppose further requirements call-

ing on the use of package inserts "until practical, simple, understandable, worthwhile information is developed . . ."

OSMA Accepts Jail Project

The Oklahoma State Medical Association has undertaken a project to improve medical care and health services within the Oklahoma jail system. The project is an extension of the very successful program conducted over the past several years by the AMA and the Law Enforcement Assistants Administration (LEAA). The program will operate under a \$40,000 Federal grant for an eleven-month period from June 1, 1979 through April 30, 1980.

OSMA Executive Director, David Bickham, indicated that the time couldn't be better for this type of project since Oklahoma recently has made several significant strides in improving the medical care of jail-inmates. OSMA's part will be to establish a system to maintain a high degree of medical service within the Oklahoma jails. An OSMA staff executive will function as project coordinator with the assistance of several physician consultants.

DOCTOR, WHAT WILL YOU EARN?

It depends, of course, on your age and annual earnings, but the amount can quite reasonably exceed \$400,000.

The total value of all your possessions — property, savings, cars and personal belongings — is only a fraction of what you will probably earn during years of practice. And yet some of you have insured these things and left your earning power unprotected.

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Oklahoma City An HMO Target

The recently-formed National Industry Council for HMO Development has identified Oklahoma City as one of 61 communities for special attention in its program to encourage formation of HMOs by the private sector. The Council is directly related to the Department of Health, Education and Welfare's division of HMO promotion which recently announced a ten-year HMO development strategy. The targeted 61 communities were chosen because they show above-average growth rates and/or above-average health costs. HEW's promotion program calls for three types of HMO development: 1) Expansion of existing HMOs; 2) Development of new HMOs; and 3) Conversion of fee-for-service, group practice medical centers, and hospitals into some form of HMO.

The first priority of HEW includes those cities identified as "highest cost" areas. The second priority is for "highest growth rate" areas, and the third priority is for "above average cost" areas. Oklahoma City falls into the third priority group.

Listed below are the 61 target cities for HMO promotion.

HEW's first priority for HMO development — "Highest Cost" Areas

1. Boston-Lawrence-Haverhill-Lowell, Massachusetts
2. New York, New York-New Jersey
3. Nassau-Suffolk, New York
4. Newark, New Jersey
5. Buffalo, New York
6. Philadelphia, Pennsylvania-New Jersey
7. Pittsburgh, Pennsylvania
8. Washington, DC
9. Baltimore, Maryland
10. Atlanta, Georgia
11. Miami, Florida
12. Tampa/St. Petersburg, Florida
13. Chicago, Illinois
14. Detroit, Michigan
15. Cleveland, Ohio
16. Milwaukee, Wisconsin
17. Houston, Texas
18. Dallas, Texas
19. St. Louis, Missouri-Illinois

20. Denver-Boulder, Colorado
21. Ft. Lauderdale, Florida

HEW's second priority for HMO development — "Highest Growth Rate" Areas

22. Orlando, Florida
23. Jacksonville, Florida
24. Jackson, Mississippi
25. Mobile, Alabama
26. Montgomery, Alabama
27. Raleigh-Durham, North Carolina
28. Columbia, South Carolina
29. Albuquerque, New Mexico
30. Austin, Texas
31. El Paso, Texas
32. San Antonio, Texas
33. Little Rock, Arkansas
34. Colorado Springs, Colorado
35. Salt Lake City, Utah
36. Anaheim, California
37. Oxnard, California
38. Anchorage, Alaska
39. Eugene, Oregon

HEW's third priority for HMO development — "Above Average Cost" Areas

40. Hartford-Bristol-New Britain, Connecticut
41. Springfield-Chicopee-Holyoke, Massachusetts
42. Albany-Schenectady-Troy, New York
43. Harrisburg, Pennsylvania
44. Norfolk-Virginia Beach-Portsmouth, Virginia-North Carolina
45. Richmond, Virginia
46. Birmingham, Alabama
47. Memphis, Tennessee
48. Nashville-Davidson, Tennessee
49. Columbus, Ohio
50. Toledo, Ohio-Michigan
51. Cincinnati, Ohio
52. Youngstown-Warren, Ohio
53. Fort Wayne, Indiana
54. Gary-Hammond-East Chicago, Indiana
55. Indianapolis, Indiana
56. Peoria, Illinois
57. New Orleans, Louisiana
58. Oklahoma City, Oklahoma
59. Omaha, Nebraska-Iowa
60. Wichita, Kansas
61. Kansas City, Missouri



DEATHS

PAUL M. VICKERS, MD
1911-1979

Retired Oklahoma City proctologist, Paul M. Vickers, MD, 68, died June 26. A native of Oklahoma City, Dr Vickers was graduated from the University of Minnesota Medical School in 1936. He had been in practice in Houston before moving to Oklahoma City in 1944. In addition to his private practice, he was an associate professor of surgery at the University of Oklahoma Health Sciences Center. Among Dr Vickers' medical affiliations were the American Association of Proctology, the Royal Society of Medicine, the Pan-American Medical Association and the Southwest Surgical Congress. Last year the OSMA presented Dr Vickers with a Life Membership in recognition of his ser-

vice to humanity and the medical profession.

HARRY B. STEWART, MD
1896-1979

Harry B. Stewart, MD, 83, well-known Tulsa anesthesiologist, died May 31. Born in Mansfield, Ohio, Dr Stewart was graduated from Ohio State University College of Medicine in 1923. He was instrumental in the formation of the American Board of Anesthesiologists and served the group as president in 1943. Dr Stewart was named Doctor of the Year in 1967 by the Tulsa County Medical Society, a group which he had served as president in 1942. He was also a member and former president of the American Society of Anesthesiologists and a Life Member of the OSMA. □



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Oklahoma State Department of Health Announces Pilot Program for Hypothyroidism Screening

One out of every 4,000 children born in Oklahoma has the chance of developing congenital hypothyroidism, and the great majority of these cases cannot be clinically detected before the newborn is discharged from the nursery. This inability to diagnose hypothyroidism at birth may result in delayed treatment and irreversible damage to the central nervous system. Without early recognition through neonatal screening, the damage to the central nervous system may cause significant mental retardation in the newborn.

In light of this inability to diagnose hypothyroidism disorders, the Oklahoma State Department of Health Laboratory Service began a pilot program on July 2 to initiate a newborn hypothyroidism screening program in Oklahoma. Twenty-one hospitals have been invited to participate in the pilot phase of the program from among those in the PKU screening program. Hospitals with larger numbers of births were selected in order to maintain an adequate volume of samples during the initial stages of the program. The program will be expanded in six to twelve months to all hospitals in the state.

It is now practical to institute mass screening of neonates for hypothyroidism because of the adaptation of T_4 and TSH measurements by radioimmunoassay to the dried blood filter paper specimens used for PKU testing. A preliminary program for hypothyroidism screening began in 1972 in Quebec. Since that time, newborn screening has been substantiated as being an effective means for the early detection of congenital hypothyroidism. Presently, most states have initiated or are in the process of initiating mass screening programs for hypothyroidism. In response to the recommendations to implement hypothyroidism screening by the American Thyroid Association in 1975 and the American Academy of Pediatrics, the Oklahoma State Department of Health has been making preparations during the past year to acquire the equipment and train personnel to provide this service in conjunction with the current PKU testing program. The Oklahoma State Legislature has appropriated money

with which to purchase the equipment and supplies to begin the program.

The new neonatal test request (ODH Form 450, Rev. 12/78) is now being distributed so that hospital personnel may gain familiarity with it. Upon receipt of the new form, all supplies of the obsolete PKU test form (ODH Form 450, Rev. 12/73) should be discarded. The new form requires much less information than the single PKU test form. This means that the remaining information requested is of vital importance to the proper interpretation and handling of the test results. Your cooperation in providing complete information and proper samples will eliminate the necessity of recalling an infant for resampling. Until notice that the program is expanded statewide, only the blood spots for PKU should be submitted to avoid unnecessary sampling of infants, except for those hospitals in the pilot program.

The specimen for hypothyroidism screening will be collected in conjunction with PKU. Collection technique for specimens by heelstick remains the same as for PKU and is recorded on the back of the collection form. Cord blood specimens are unacceptable in our system. It is absolutely necessary that all four circles be properly filled with blood, since neither test can be run on a marginal sample. Specimens should be submitted promptly on a daily basis. Time is of great importance in getting any suspicious results to appropriate diagnosis.

Guidelines for obtaining the initial T_4 specimen are basically the same as those for PKU testing. The primary PKU/ T_4 specimen is requested to be drawn no sooner than 24 hours after onset of milk feeding and as close to discharge as possible, but no later than seven days of age. Term infants ideally should be tested after three-four days of age. Premature infants should be tested between the fifth and seventh day after birth or as soon thereafter as protein intake is adequate. Even when an infant is discharged before having ingested milk feedings for 24 hours, a blood specimen should always be obtained on discharge from the newborn nursery. A second blood specimen for PKU should be obtained during the second week of life if the primary test was obtained before milk intake was adequate. Postponement can only delay the onset of treatment if the follow-up is positive. A second specimen is not routinely required for hypothyroidism screening.

For hypothyroidism screening, an arithmetic mean T_4 , as found by radioimmunoassay and standard deviation, will be computed for each day's run. Subsequently, a TSH level by radioimmunoassay will be determined on all specimens in which the initial T_4 level fell in the lower 10 percent (below 1.3 S.D.).

With the advent of hypothyroidism testing statewide, present data would indicate the identification of approximately 11 cases of hypothyroidism annually in Oklahoma. The majority of neonates necessitating recall for repeat blood spot filter paper specimens would be those in the lowest one percent of T_4 values with normal TSH results. In addition it is estimated, based on our experience with PKU testing, that approximately this same number of infants will need to be recalled because of unsatisfactorily submitted specimens.

As with any test, we will rely on the physician-patient relationship to assure that appropriate follow-up and evaluation of abnormal or unsatisfactory results are carried out. Referral of the patient for consultation is strongly recommended by the American Academy of Pediatrics, unless the physician is personally familiar with all aspects of the differential diagnosis. Oklahoma Children's Memorial Hospital, Oklahoma City, Oklahoma, and Children's Medical Center, Tulsa, Oklahoma, which serve as referral centers for evaluation and treatment of PKU, have both indicated their willingness to do the same for the evaluation of neonates with abnormal hypothyroidism screening tests. To assist physicians in follow-up of unsatisfactory or abnormal tests, the Nursing Service of the Oklahoma State Department of Health has indicated that the public health nurses in the counties with local health departments will be available to notify patients or perform repeat tests when ordered by the physician.

For further information regarding the medical interpretation of hypothyroidism tests results or for assistance in arranging indicated further evaluation, contact the Pediatrics Division, Edd D. Rhoades, MD, Maternal and Child Health Service, Oklahoma State Department of Health, at (405) 271-4471. The Laboratory Service, Oklahoma State Department of Health, may be contacted at (405) 271-5070 regarding sample collection, submission information and technical questions about hypothyroidism testing. If you are involved in the pilot phase, please let us know if you en-

counter any problems. Since we are going to be in a pilot phase for hypothyroidism screening for several months, we would like to make any indicated modifications in our system if possible during this time. *Methods and values will be provided upon request.* □

Book Reviews

HEALTH CARE IN A CHANGING SETTING: THE UK SETTING. Ciba Foundation Symposium 43 (new series). Edited by Ruth Porter and D. W. Fitzsimmons, Amsterdam: Elsevier-Excerpta Medica — North-Holland (1-76), 188 pages, price - unspecified.

Those responsible for the delivery of health care have watched with interest the evolution of the National Health Service of Britain. Thus, a review of this experiment should interest persons in many different disciplines concerned with health care.

The symposium which was held in December, 1975 in London brings together twenty-five persons from different disciplines, all from the British Isles. The start of the proceedings makes for slow reading. The first chapter entitled "The Difficulties of Changing" is filled with vagaries, intended to show how elusive change is. It is punctuated with attempts at humor, which further obscure the object of this section. The second chapter informs us that the new National Health Service was a major move combining social concern with practical medical assistance to relieve many of the emotional and financial burdens of ill health. The author identifies a major problem; namely, after twenty-five years, regional differences in the delivery of care remain the most baffling problem of the service.

C. J. Lucas discusses the effect of the National Health Service on the provision of health care in university health services and emphasizes the over-balance for emotional disorders. The chapter by Lisbeth Hockey, "The Nurse's Contribution to Care," is thoughtful and insightful and identifies several future concerns. Douglas Roy discusses the alterations in the practice of the hospital-based physician in a changing society. A. Guz has contributed a chapter entitled "The Place of Academic Research" in the National Health Service. He outlines well the problems faced by clinical departments in medical schools in striking a balance between patient care, teach-

ing and research in view of the enormous demands for delivery of health care.

Like most Ciba symposia, the proceedings are organized in the format of presentations followed by general discussion. There is a substantial unevenness in various chapters. Some are brief and consist mainly of opinion. In many instances, the discussions are often a series of statements, suggesting that there were no participants from the political arena.

Those interested in having a compact, meaningful review of the experiment of the National Health Service will be disappointed in this book. On the other hand, there are areas of excellence for the reader who wishes to dig through it. *Harris D. Riley, Jr., MD*

FOUNDATIONS OF EPIDEMIOLOGY.

Abraham M. Lilienfeld. New York: Oxford University Press, Inc., 1976, 283 pages, \$11.95 (hard-cover), \$7.95 (soft-cover).

The publication of this book is timely because of renewed interest in epidemiologic aspects of disease. *Foundations of Epidemiology* is designed to familiarize the reader with current concepts and methods of epidemiology as they apply to a variety of chronic and infectious disease disorders. The author uses specific disease problems to illustrate both concepts and methods, and with this approach provides an excellent and systematic overview of the scope of epidemiology.

After describing the fundamentals of epidemiology, the author outlines selected epidemiologic concepts of disease, such as agents, hosts, and environment; mode of transmission; incubation period; spectrum of disease; and herd immunity. The remainder of the book is concerned chiefly with a description of epidemiologic methods. The importance of an understanding of statistics is emphasized. Mortality and morbidity statistics used by the epidemiologist in studying the frequency of disease during a particular time-frame and in different geographic areas are discussed in detail. In the discussion of laboratory tests, it is not clear to this reviewer the effect of prevalence rate of a particular disease on the probability that an individual with a positive test has the disease in question. A final chapter summarizes how epidemiologists use these

methods for evaluating hypotheses of etiology of disease.

All in all, this is a practical and excellent text for individuals seeking a comprehensive review of epidemiology. *Harris D. Riley, Jr., MD*

COMMUNICABLE AND INFECTIOUS DISEASES.

Eighth Edition, Edited by F. H. Top, Sr. and P. F. Wehrle, St. Louis: C. V. Mosby Company, 1976, 807 pages, \$39.50.

This well-known reference text has provided a comprehensive description of common infectious diseases since 1941. Since that time the book has expanded from 39 chapters to 62, covering a variety of disease processes and other aspects of infectious diseases. The perspective continues to be a clinical and epidemiologic combination, and the emphasis on microbiologic and laboratory aspects of disease is relatively limited. A chapter, "Nosocomial Infections," has been added for the first time in the eighth edition. Other new chapters include one on anaerobic infections and one on dengue, a disease that is being reported with increasing frequency in some countries. The discussion of newer concepts of the role of *Escherichia coli* in diarrheal disease is not particularly clear. One deficiency continues in that the index does not consistently list the causative agents of each disease.

This book will continue to be of value to all concerned with infectious diseases. *Harris D. Riley, Jr., MD*

BREAST FEEDING AND THE MOTHER.

(Ciba Foundation Symposium No. 45, London, 1976). New York: Elsevier, 280 pages, 1976.

The decline in breast feeding in many societies has become a subject of major concern to health workers throughout the world. This topic was already discussed in two recent symposia held at the Ciba Foundation—on parent-infant-interaction in November 1974, and on diarrhea in childhood in October 1975 — attesting to the importance of the topic. This symposium was attended by pediatricians and other physicians, psychiatrists, nutritionists, public health workers, nurses and other health workers. The members of the international symposium discussed the effects of breast feeding on the mother in light of concern

about the world-wide decline in both incidence and duration.

The proceedings open with a good description of the physiology of lactation including the changes in pituitary-adrenal activity, hormonal control, the significance of the secretion of prolactin and other implications. The control of reproduction by lactation is a theme that is touched on several times during the symposium. Psychological and cultural viewpoints are examined, and the way a mother views herself can effect the choice or success of breast feeding. The great importance to both mother and baby of early contact following birth, the need for emotional support as well as good nutrition of the mother are emphasized. The community and sociopolitical consequences of cultural attitudes and breast feeding for both developed and developing countries are considered.

Like most Ciba symposia the formal presentations are followed by pertinent discussion, one of the most valuable parts of the monograph.

This book should interest those working in various health fields, medical and nursing education, economics, nutrition, reproductive physiology, particularly those in developing countries.

Harris D. Riley, Jr., MD

TROPICAL MEDICINE. By George W. Hunter, III, J. Clyde Swartzwelder and David F. Clyde. (Fifth Edition). Philadelphia, W. B. Saunders Co., (1976), 900 pages.

With the fifth edition, *A Manual of Tropical Medicine* becomes *Tropical Medicine*. As pointed out in the Preface, the initial edition was prepared during World War II to meet the needs of the Armed Forces in the tropical and sub-tropical areas of the world. The manual met wide acceptance because of the expansion of health and medical education programs on a worldwide basis and changing needs. The book has been revised four times. Political, social and economic trends during the past four decades have involved nations of the world in activities which disperse their citizens to all areas of the world. This migration, back and forth, has increased the need for trained personnel in all disciplines encompassed by medicine and public health in the tropics and subtropics. As emphasized by Thomas H. Weller in the Foreword, there is insufficient ap-

preciation today of the broad societal significance of tropical diseases and their impact on the United States. He also points out that there are few physicians who do not encounter problems in the area of tropical medicine with surprising regularity. Each day, tens of thousands of citizens from the United States travel through, or reside in, the less sanitary areas of the world. With rapid jet air travel, return to the United States by plane may be a matter of hours after exposure to some disease. The immediate diagnosis and treatment of the patient with a variety of diseases uncommon in this country may be lifesaving.

The fifth edition contains several revisions and additions. The sections on mycotic and actinomycotic diseases and on viral diseases have been completely rewritten. There are new chapters on goiter and venereal diseases in the tropics. The material on amebiasis has been substantially revised and coverage of primary amebic meningitis expanded.

All in all, this is a very valuable book and constitutes a standard reference. Every physician in clinical practice should have access to it.

Harris D. Riley, Jr., MD

BLOOD FLOW AND METABOLISM IN THE BRAIN. Proceedings of the 7th International Symposium on Cerebral Blood Flow and Metabolism. Edited by M. Harper, B. Jennett, D. Miller and J. Rowan. Edinburgh, London and New York: Churchill Livingstone, 1975, pages not numbered.

The book consists of 150 papers presented at the Seventh International Symposium on Blood Flow and Metabolism in the Brain. The work is presented by authors from this country and from abroad. The collection of papers is divided into several subcategories including pharmacology and the effects of drugs and neurotransmitters on brain function and flow as well as the results of central nervous system changes secondary to diffuse and focal ischemia.

Because of the limited amount of space allotted to each author, there is unfortunately a minimum amount of information regarding the details of the studies. One gets the impression that the papers are somewhat short on explanation and long on conclusions.

This would be a publication of particular interest to researchers in the area of brain

metabolism and in the field of basic research. I do not see it as a publication that would be of particular interest to the physician in practice. Unfortunately, many conclusions arrived at are still on a basic research level and at this time are not directly applicable to clinical situations.

The book does give the independent investigator a good overview of the present direction and thrust of research regarding brain metabolism at the present time. *Georgia Prentice, MD*

RECENT ADVANCES IN CARDIOLOGY, No. 7, Edited by John Hamer, 511 pages with illustrations. \$39.50. New York: Churchill Livingstone, 1977

This seventh edition of *Recent Advances in Cardiology* follows and approximates the excellence of the preceding editions. It provides a well organized and in depth review of the topic. The editor has done a creditable job of bringing together the essays of 21 contributors.

The 18 chapters crystallize recent important advances in cardiology. Particularly useful are the chapters on radioisotope techniques and on clinical pharmacokinetics of digitalis. There is relatively little emphasis given to echocardiography and this probably represents the differing emphasis in Great Britain and that in America. There is a pertinent, up-to-date bibliography for each of the topics.

This monograph will be useful in continuing-education applications. *Harris D. Riley, Jr., MD*

MEDICINE IN KENTUCKY: By John H. Ellis. Lexington, Kentucky: University Press of Kentucky, 1977, 96 pages, \$4.95.

In this essay, John H. Ellis, a historian, describes the efforts of physicians and laymen to combat illness during Kentucky's first 200 years. The annals of Kentucky history are filled with important names in American medicine, including Daniel Drake, Ephriam McDowell, Samuel D. Gross and others. After a description of the Kentucky frontier, Ellis devotes the second chapter to medical education. This includes a discussion of the establishment and activities of Transylvania University, the

Louisville Medical Institute, the seven medical schools located at Louisville at one time or another and finally the University of Kentucky. Other chapters include "Diseases and Medical Practice," "Medical Publications and Professional Societies," "Preventive Medicine and Public Health" and "Kentucky Medicine in our Time."

This small book has four pages containing interesting bibliographical notes, but unfortunately there is no index. It will be of interest particularly to those with Kentucky connections and/or an interest in medical history. *Harris D. Riley, Jr., MD*

THOMAS HUNT MORGAN, PIONEER OF GENETICS. By Ian Shine & Sylvia Wrobel, Lexington: University Press of Kentucky, 1976, 156 pages, \$3.95.

In 1933, Thomas Hunt Morgan was given the Nobel prize in medicine and physiology for his contributions to the chromosome theory of inheritance. This represented the first Nobel award in the field of genetics and Morgan was the first and only native of Kentucky to receive a Nobel award. This small book, which is a biography of Thomas Hunt Morgan, describes his early life, his education at the University of Kentucky and Johns Hopkins University and his subsequent activities as a faculty member at several different universities. His most noted work, done between 1910-1920 at Columbia University, revealed many of the secrets of genetics. Studying hundreds of generations of the fruit fly, he and other scientists in the laboratory there made basic discoveries about chromosomes and the mechanisms of inheritance which profoundly affected biological theory. Morgan was interested in many other problems in biology as well. His embryological and regeneration studies were of fundamental importance, although less dramatic than his research in genetics.

An almost equally interesting aspect of this book is the discussion of Morgan's family. His father was a brother of General John Hunt Morgan, the famous Confederate cavalry leader. His mother, the former Ellen Key Howard of Baltimore, was the granddaughter on her mother's side of Francis Scott Key of Star Spangled Banner fame and her paternal grandfather was John Eager Howard, Revolutionary War hero and Governor of Maryland. His four children were all successful and

one of them, Isabel, made a name on her own, with her work with poliovirus.

The book ends with a chronology of Morgan's life. Unfortunately it does not have an index.

This is an interesting small book about one of the pioneers of genetics. *Harris D. Riley, Jr., MD*

THE PROFESSOR GAME. By Richard D. Mandell. Garden City, New York: Doubleday and Company, 1977, 274 pages, \$8.95.

Richard Mandell, a professor at a large but unnamed Southeastern university, has written a deliberately "disrespectful" book about the life and activities of college professors. It is intended apparently for parents, legislators and others of the taxpaying public, whom Mandell apparently thinks should be better informed. No doubt his colleagues will disagree strenuously with many of his conclusions. According

to Mandell, college professors (in non-professional schools) have it made. They work short hours, are protected by tenure, have leisurely lunches, attend conventions held at popular resorts and occasionally take a sabbatical year off, with full or half pay. Mandell also states professors enjoy a master-slave relationship with graduate students, those individuals plugging away pursuing master's degrees or doctorates.

While higher education has numerous critics within its own ranks, this may be the first critical study aimed toward the general public. College professors join educators in the public schools in taking their lumps from the mass media. The book is generally well written, often humorous and readable.

College professors as intellectuals have been in the lead in faulting other institutions of society. It is proper that society also examine higher education and Mandell's book will stimulate this. *Harris D. Riley, Jr., MD* □

Miscellaneous Advertisements

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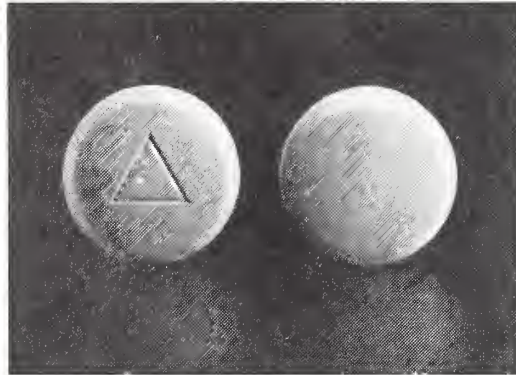
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The Maker

Examining a Few Myths About Prescribing.



Increasing pressure is being put on the practicing physician to prescribe drugs generically. You are told that brand-name products are universally “expensive” and generic versions are relatively “cheap.” To make this case, the most extreme (rather than typical) price differentials are cited. Thus, consumers are led to believe that such differentials are commonplace. Even your knowledge and your motives as a physician are questioned.

Understandably, these views have created myths. We think it's time to examine them in the light of all the facts and ramifications.

MYTH: There are no differences in quality and performance between brand-name products and their generic counterparts. The corollary is that there are no differences among products made by high-technology, quality-conscious, research-based companies and those made by commodity-type suppliers.

FACT: The Food and Drug Administration does a good job in monitoring a generally excellent drug supply. Still, it has nowhere near the resources to guarantee the quality and bioavailability of all marketed products at any given time. Just a few months ago, for example, it noted that batches of tetracycline HCl capsules which met official monograph requirements were

not bioequivalent to a reference product. As you know, there is substantial literature on this subject affecting many drugs, including such antibiotics as tetracycline and erythromycin. The record of drug recalls and court actions affirms strongly that there are differences among pharmaceutical companies and their products. Research-intensive companies have far better records than those that do no research and may practice minimum quality assurance.

MYTH: Industry favors only “expensive” brand names and denigrates all generics.

FACT: PMA companies make 90 to 95 percent of the drug supply, including, therefore, most of the generics. Drug nomenclature is not the important point; it's the competence of the manufacturer and the integrity of the product that count.

Post-Mortem Tragedies

D.O.A. That's what the nurse had said. You glance at the glowing digits on the face of your alarm clock; 3:15. Your hand touches the telephone again, briefly. It's secure in the cradle. The stillness of the house is familiar, reassuring. The ringing call had not disturbed the other members of your sleeping family.

Now, you remember. Bruce was about twenty-six-or-seven and his wife was three or four years younger. What a tragedy. A truck ran a stop sign and the lives of two young people came to a crashing end. What bitter irony. You saw them just last month, for complete examinations. They were worrying that maybe they couldn't have children. You wonder if they'd planned to have the fertility tests you had suggested. Maybe she was pregnant. You anticipate the melancholy ritual of reviewing their records and completing the death certificates. Wondering where their parents live, your anguish lingers until sleep returns.

You are reminded that you meant to look at their charts when you hear the details of the accident that took the lives of Bruce and Debbie Brown as described on the late-night television news the following evening. The next day you take a few minutes of your lunch time to get their charts from your files and write "Deceased" across the name tab. You review the information you have recorded over the years. You add a brief note to each record describing the date, hour and violent circumstances of the deaths. Later, you complete the death certificates, sign them, have some copies made and see that they are mailed. In your mind and heart, the tragedy has ended although, in fact, it has not.

How could you know that four blind persons were robbed of their precious inheritance of sight from Bruce and Debbie Brown? You hadn't asked either of those young, healthy

adults if they had willed their eyes to the living.

How could you know that four despairing uremic patients will stay on the dialysis program because they did not receive the kidneys which had been willed to them by Bruce and Debbie?

How could you know that two victims of intractable heart disease will drown with pulmonary edema much sooner because two young and healthy hearts, promised to living, hoping people were embalmed and buried with dead bodies?

How *could* you know? Simply by making it part of the knowledge you obtain from every one of your patients. Ask them, without fail, if they have willed their eyes or kidneys or hearts or bodies to an organization or institution. If they have, record the details of their thoughtfulness and the fact of their posthumous gifts where it will not be overlooked. Encourage them to carry the information with their personal identification cards; suggest that they add the words "Organ Donor" or "Anatomical Assignments" to medical information tags, bracelets and other such devices. Also, make it policy to mark their records in some conspicuous way so that even a casual inspection will disclose this vital information. Printing the words "Organ Donor" or "Anatomical Assignments" on the inside of the front of the chart folder, in bold, red letters will help prevent many unfortunate oversights. Writing the same words on the order sheet of a hospital record can also reduce the incidence of these post-mortem tragedies.

Knowledge of anatomical assignments is important enough to be considered part of every patient's vital statistics. We must make it a part of every medical history. It is part of our obligation to our patients, our profession and our society.

How *could* you *not* know?

MRJ

How To Be Heard

As experience matures the individual, there is a yearning to communicate. Education furthers the process. There is a desire to share thoughts and words. When life is incomplete or its problems are unresolved, the result is an expression of complaint. More often, in the concerned individual, it may be frank criticism. Too often criticism is derogatory. The thinking person expresses by constructive commentary. For the physician, participating in organized medicine is a way to be heard.



Briefly, this is the way our system works. The rural community physician and his metropolitan counterpart may each speak equally and "sound-off." Every physician member of a county medical society may be heard in the "forum" of the meeting floor. Besides the opportunity to be critical, he has the privilege of introducing "resolutions." These may be approved by group action forwarding them to the state organization. The individual still has the right of direct expression.

Resolutions introduced by the individual or the county medical society are first presented at state level to a reference committee. There is freedom of discussion, and any member of the Oklahoma State Medical Association may be heard. There is also the opportunity of discussing your thoughts with your county medical society delegates. The delegates, elected by the county society, vote at the state level. Resolutions proposed will also be published in the *OSMA News Bulletin* and *The Journal of the*

Oklahoma State Medical Association prior to the meeting date. On extraordinary occasions, urgent and cogent resolutions or problems may selectively be heard for action by the OSMA Board of Trustees. The board meets quarterly. Communication with your state officers is also available.

At the national level there is a similar democratic process. Resolutions to be heard may start with the individual, and progress through county to the state organization. As county medical societies have delegates to represent them at the state level, so does the state have delegates to represent them at the national level. Our national organization, the American Medical Association, gives each a way to be heard. You can communicate directly to your delegates or you may speak as a member of the AMA before any reference committee to which a resolution has been assigned.

The OSMA has three delegates and three alternate delegates. As our membership continues to increase, we should soon have an additional delegate and alternate. Our delegation group is particularly active. It is often heard in the AMA House of Delegates meeting, which meets semi-annually. Before each meeting, our state headquarters is advised of resolutions to be heard. Much of the material is also published in the *AMA News*.

Where else but in our own professional organization is there such an opportunity for democratic action?

You are urged as an individual member to be involved.

You can be heard!

Wm. M. Leebron, M.D.

The Oklahoma Lipid Research Clinic: Research In Cardiovascular Disease Through The Lipid Research Clinics Program

MARY F. BROCKWAY, PhD
Assistant Member, Oklahoma Medical
Research Foundation

REAGAN H. BRADFORD, MD, PhD
Executive Vice-President and Member
of the Oklahoma Medical Research Foundation

PAUL S. ANDERSON, JR., PhD
Director School of Public Health, University
of Oklahoma Health Sciences Center

JUDITH HILL, MS
Senior Research Assistant, Oklahoma Medical
Research Foundation

ARDEN MACKENTHUN, PhD
Assistant Professor, University of Oklahoma
Health Sciences Center

*Fifteen Lipid Research Clinics are
involved in an international collaborative
investigation of heart disease, the number
one cause of deaths in the US.*

AN OVERVIEW

In June 1970, the National Heart and Lung Institute, since reconstituted as the National Heart, Lung and Blood Institute (NHLBI), convened a Task Force to develop a long-range plan to combat arteriosclerosis which was

This work was supported by Contract #NO1 HV2-2932-L granted by the National Heart, Lung and Blood Institute of the National Institutes of Health.

based upon existing knowledge and was aimed at pinpointing areas for future research. One of the recommendations contained in the report generated by this panel led to the creation of the Lipid Research Clinics (LRC) Program in 1971 with the following major objectives:

- To describe the prevalence of different types of hyperlipoproteinemia in various population groups, and
- to describe the prevalence and incidence of atherosclerosis in different types of hyperlipoproteinemia, and
- to conduct an intervention trial to determine if lowering plasma lipid levels would reduce the risk of coronary heart disease (CHD).

In order to fulfill these objectives, twelve Lipid Research Clinics were established in 1971 and 1972 in North America, eleven in the United States and one in Canada. Support facilities were simultaneously created to coordinate, standardize and evaluate various aspects of the work required to accomplish the goals. The LRCs were chosen to provide wide diversity in geographic, socioeconomic and ethnic characteristics. In 1972, as a result of the establishment of the US-USSR Joint Program in Cardiovascular Disease, clinics were set up by the Soviet government in Moscow and Leningrad. In July, 1975, the NHLBI established an LRC in Jerusalem, Israel. The facilities of the LRC program and their locations are listed in Table 1. Components of the LRC Program include two major sets of col-

laborative studies, the Population Studies and the Coronary Primary Prevention Trial.

The Coronary Primary Prevention Trial (CPPT) was designed to test the hypothesis that lowering plasma cholesterol will decrease the incidence of coronary heart disease. For this study 3810 asymptomatic, hypercholesterolemic males aged 35-59 were entered into a double blind follow-up study planned to continue for seven years. Treatment for the study groups consists of either cholestyramine plus

dietary supervision or placebo plus dietary supervision. Dietary data collected during the CPPT is being used to achieve long-term modification of eating habits as well as to assess group changes in food intake.

The Population Studies consist of three major phases encompassing the same general population base. These are:

- The Prevalence Study which was conducted by ten of the American clinics and the three international clinics. It consisted of two screening visits in which subjects from well-defined populations were evaluated to describe the distribution of lipids and lipoproteins and their association with diet and CHD.

- The Family Study, further screening of a sub-sample of those participating in the Prevalence Study, including both normal lipidemic and hyperlipidemic subjects, their first-degree relatives and spouses. This study began in 1975 and was completed in 1978.

- The Follow-Up Study, a prospective study to determine the subsequent mortality experience of approximately 9000 men and women who were at least 30 years old at the time of their second screening. This study was initiated in mid-1977.

The Oklahoma LRC was established in 1972 through the Oklahoma Medical Research Foundation (OMRF) to conduct both the Population Studies and the CPPT. This article is the first of a planned series of articles which will be appearing in this *Journal* to present in detail the various aspects of this study and to present a description of all results.

STANDARDIZATION

All phases of the LRC are conducted according to carefully defined collaborative procedures. All clinics adhere to standardized protocols with quality control systems in operation at all times. Training sessions are held for each phase of the data collection procedure to minimize variation in procedures across the clinics. All interviewers and technicians are carefully trained according to collaborative procedures and the necessity of careful data collection is emphasized at all times.

Analysis of laboratory data is just as carefully standardized. Each clinic maintains an analytical laboratory which went through a rigorous standardization procedure at the

TABLE 1
LIPID RESEARCH CLINICS FACILITIES

North American Clinics:

- University of Washington, Seattle, Washington
- Stanford University, Palo Alto, California
- University of California at San Diego, La Jolla, California
- Baylor College of Medicine, Houston, Texas
- Johns Hopkins University, Baltimore, Maryland
- Oklahoma Medical Research Foundation, Oklahoma City, Oklahoma
- University of Minnesota, Minneapolis, Minnesota
- Iowa University, Iowa City, Iowa
- Washington University, St. Louis, Missouri*
- George Washington University, Washington, DC*
- Toronto-McMaster, Ontario, Canada
- University of Cincinnati, Cincinnati, Ohio

International Clinics:

- All-Union Cardiological Research Center, Moscow, USSR
- Institute of Experimental Medicine, Leningrad, USSR
- Hadassah Medical School and Hebrew University, Jerusalem, Israel

Support Facilities:

- Central Clinical Chemistry Laboratory, Van Nuys, California
- Central Electrocardiographic Laboratory, University of Alabama, Birmingham, Alabama
- Central Patient Registry and Coordinating Center, University of North Carolina, Chapel Hill, North Carolina
- Nutrition Coding Center, University of Minnesota, Minneapolis, Minnesota
- Drug Supply and Distribution Center, Mead Johnson, Evansville, Indiana
- Lipid Standardization Laboratory, CDC, Atlanta, Georgia

Program Office:

- Lipid Metabolism Branch, National Heart, Lung and Blood Institute, Bethesda, Maryland

*Did not conduct the Population Studies.

THE PREVALENCE STUDY

The Prevalence Study consisted of two screening visits. The first, Visit 1, consisted of administering a brief questionnaire to collect information on sociodemographic variables, utilization of five types of medication, and measurement of fasting plasma cholesterol and triglyceride. A fifteen percent randomly selected sample of those who attended Visit 1, augmented by those subjects with elevated lipids or who were taking lipid-altering medication, were asked to return for Visit 2. Data collected at this visit include medical and family histories, a listing of medications prescribed by a physician in the two weeks prior to the screening, blood pressure measurements, lipid and lipoprotein determinations, clinical chemistries and anthropometric measurements. In addition, a 24-hour dietary recall was collected and resting and exercise electrocardiograms were done. Approximately 25% of those subjects seen at Visit 1 were asked to return for Visit 2. Data collected in this phase will allow description of the prevalence of the various types of hyperlipidemia and the description of the distributions of lipids and lipoproteins in major population groups. In addition, the associations between nutrient intake, blood lipids and lipoprotein levels and the existence of coronary heart disease can be examined in greater detail.

From 1971 to 1975, approximately 82,000 subjects were asked to participate in the Visit 1 screening in ten North American clinics. Approximately 60,500 subjects came to Visit 1 giving a participation rate over all clinics of 74%. Of those participating in Visit 1, 16,900 were asked to come to Visit 2. Approximately 14,000 people completed the Visit 2 procedure.

The Oklahoma LRC made a significant contribution to this population-based study. This group selected a probability sample of the population of four counties contiguous to the Oklahoma City metropolitan area, McClain, Canadian, Lincoln and Pottawatomie. A total of 7,190 of those selected attended the Visit 1 screening, a participation rate of 75.5%. Of those, 1,638 people participated in Visit 2. Detailed descriptions of the measurements made in these two visits will be presented in the next few months.

Preliminary Visit 1 findings for the aggregate LRC program were reported by the NHLBI at a press briefing July 13, 1977. Analyses of the collaborative Visit 1 data have yielded population-based distributions for cholesterol and triglyceride levels for white men and women which are described in great detail in the first collaborative descriptive publication.¹ The collaborative LRC data confirm a rise in cholesterol levels from teenage years to middle-age for both sexes which has been previously reported in literature. The data also show a substantial rise in triglyceride levels between late teens and middle-age for men and women with levels of triglycerides consistently higher in those women taking sex hormones.² The magnitude of the change in lipid levels for those women taking sex hormones in conjunction with the high utilization of these hormones indicates that the use of sex hormones may be an important determinant of female lipid levels.

Examination of those participating in the population studies in the pediatric age group demonstrate a drop in plasma cholesterol levels during the teen years. A manuscript describing the distribution of lipids in these age groups in the aggregate populations of the LRCs has been submitted for publication.³

As presented in the collaborative description of the lipid distributions, aggregated LRC cholesterol levels are consistently lower than those found in previous surveys of the US populations. In contrast the triglyceride distributions show values that are consistently higher than those generally believed to be present in the North American population. Whether these differences occur because of laboratory procedures, sampling methodology, or the diversity of the populations or actually represent a shift in the lipid distributions is not yet known. Future analysis will be aimed at clarifying these questions and examining in greater detail associations between lipid levels and various other factors.

FUTURE WORK AT THE OKLAHOMA LRC

A description of the distribution of plasma cholesterol and triglyceride levels in the Oklahoma LRC Prevalence Study as measured at the Visit 1 and Visit 2 screenings is now com-

plete. These results will be appearing in future issues of this *Journal*. In addition, descriptions of various other facets of this data including lipoprotein distributions, blood pressure determinations, medication utilization and clinical chemistries will be prepared. These publications will describe results pertaining to the Oklahoma data and compare them with collaborative LRC data and results obtained in other studies.

CONCLUSION

The experience of the Oklahoma LRC provides a wealth of base-line descriptive informa-

tion on a large group of Oklahomans. It is the hope of these investigators that this information can be made widely available to persons involved in the delivery of health care services to residents of Oklahoma. □

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Oklahoma Lipid Research Clinic, Oklahoma Medical Research Foundation, 825 NE 13, Oklahoma City, Oklahoma 73104.

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Lactated Ringer's Solution — A Perspective

SOLOMON PAPPER, MD

Lactated Ringer's solution is of proven value in shock, severe trauma and burns. It remains to be established that it is the best solution.

Lactated Ringer's solution is currently in common use especially in the surgical arena. It might be well therefore, to review the historical development of this solution, the evidence for its value, the questions that remain, and the contraindications to its use.

HISTORY

Doctor Sydney Ringer lived from 1835-1910 in England where he was a physiologist. Doctor Ringer, working with isolated animal organs came to believe it might be better to conduct his experiments in a solution that was

more "physiologic." To that end, Ringer developed a solution with the following composition.

Sodium	145 mEq/l (milliequivalents per liter)
Potassium	4 mEq/l
Calcium	6 mEq/l
Chloride	155 mEq/l

In the 1930's the very distinguished pediatrician, Dr Alexis F. Hartmann, became aware of Ringer's solution for physiologic experiments and decided it might similarly be advantageous to introduce a more "physiologic" solution for clinical purposes. Therefore, in 1932, Hartmann introduced into medicine a "balanced" solution especially for the treatment of metabolic acidosis. He referred to it as "lactated" Ringer's solution. The composition of lactated Ringer's solution, more properly known as Hartmann's solution is as follows:

Sodium	130 mEq/l
Potassium	4 mEq/l
Calcium	3 mEq/l
Chloride	109 mEq/l
Lactate	38 mEq/l

It is evident that lactated Ringer's solution is quite different from the original Ringer's solution. The only relationship is the attempt to make a "balanced" or "physiologic" solution for human use which Hartmann traced to the concept of Ringer in his animal experimentation.

From the Department of Medicine, University of Oklahoma Health Sciences Center and Medical Service, Veterans Administration Medical Center, Oklahoma City.

Ringer's Solution / PAPPER

Evidence for the Value of Lactated Ringer's (Hartmann's) Solution

Although there is a great deal of evidence supporting the use of lactated Ringer's solution in the surgical arena, I shall concentrate on three observations. First, it has become evident in hemorrhagic shock, in severe trauma, and in experimental burns that there is a reduction in extracellular fluid volume (ECFV) in excess of the volume that is lost in the traumatic site (third space) or from bleeding. For example, in acute hemorrhagic shock in dogs involving 25% or more of blood volume, the total extracellular fluid (ECF) is reduced by more than can be accounted for on the basis of bleeding alone. It appears that under these circumstances the cell membrane does not function normally and allows extracellular fluid to move into intracellular space. Similarly, in trauma there is the pooling of extracellular fluid in the traumatized site which is often referred to as the third space but in addition the cell appears to be damaged and there is a shift of fluid from the extracellular space into the cells themselves. Similar observations are available in burn victims, demonstrating a movement of fluid from ECF to an intracellular location.

Secondly, despite older teaching to the contrary, it had been demonstrated in the 1950's that the kidney postoperatively was capable of excreting sodium normally, once volume contraction was repaired. (Fig 1)

Thirdly, a logical derivation of the first and second consideration was to consider utilizing a "balanced" sodium-containing solution to expand ECFV under conditions of hemorrhage, trauma, and burns. Doctor Shires and his as-

sociates proceeded to study the subject in an elegant series of experiments. They chose lactated Ringer's solution because of its general resemblance to ECF, ie, it is a "balanced solution" and because it is commercially available. One of the key experiments studying survival

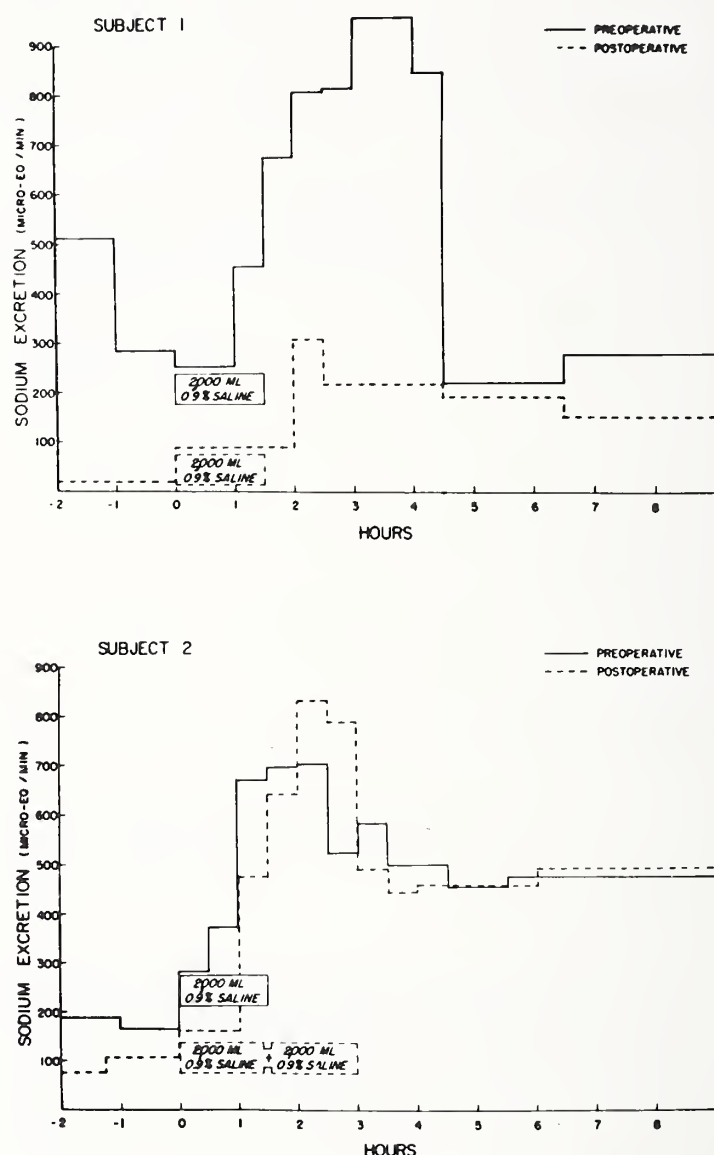


Figure 1. Pre- and Postoperative natriuretic response to a challenge of 200 ml of 0.9% saline in Subjects 1 and 2. Postoperatively the baseline sodium excretion is reduced in both subjects reflecting a reduced effective ECFV. In Subject 1, whose volume deficit was not repaired, the response to the challenge is reduced. In Subject 2, sufficient saline (in this case 200 ml) was given to raise the postoperative baseline excretion to preoperative levels, reflecting repair of the ECFV deficit, and then the challenge was given. In this instance postoperative natriuretic response was comparable to the preoperative values. From Randall, R. E., Jr., and Papper, S. Mechanism of postoperative limitation in sodium excretion: The role of extracellular fluid volume and of adrenal cortical activity. *Journal of Clinical Investigation* 37:1628-1641, 1958. Copyright 1958 by the *Journal of Clinical Investigation*. With permission.

Solomon Papper, MD, was graduated from New York University College of Medicine and has been certified by the American Board of Internal Medicine. He is Distinguished Professor and Head of the Department of Medicine at the University of Oklahoma Health Sciences Center. Dr Papper is Governor, Oklahoma Region, American College of Physicians and a member of the American Society of Clinical Investigation, the Association of American Physicians and the American Federation for Clinical Research.

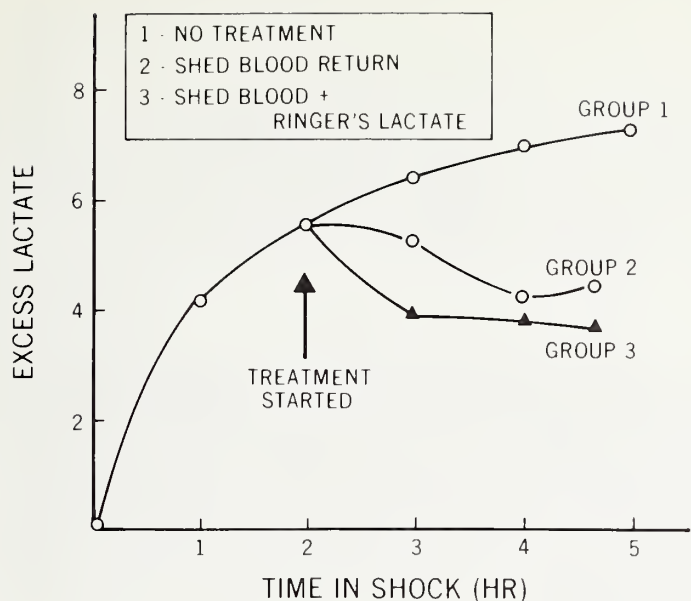


Figure 2. Acute hemorrhagic shock in dogs — survival study. The ordinate is numbers of dogs and the abscissa, the time after hemorrhage. From Shires, G. T., Carrico, C. J., Baxter, C. R., et al: Principles in treatment of severely injured patients, in Welch, C. E., et al (eds.): *Advances in Surgery* 4:255-324, 1970. Copyright © 1970 by Year Book Medical Publishers, Inc., Chicago. Used by permission of the author and publisher.

in dogs following hemorrhagic shock is depicted in Figure 2. Dogs that received blood and lactated Ringer's had a better survival than dogs who received blood and plasma or whole blood alone, supporting the premise that ECF expansion improved survival under these conditions.

With these and other compelling studies, Shires and his colleagues quite properly embarked on the use of this solution for the treatment of surgical patients who suffered severe trauma, burns or following shock.

Shires believed that lactated Ringer's (or Hartmann's solution) has as its sole mechanism of action the fact that the extracellular fluid volume was expanded. He never assumed that there was any particular magic to the "balanced" solution that he selected and in fact his interpretation of the mechanism of action is reflected in the following quotation. "There is no question that the sodium ion is the most important component of the replacement fluid. However, a balanced salt solution will tend to prevent hypernatremia and dilutional acidosis which may occur when isotonic saline alone is used."¹

REMAINING QUESTIONS

One of the questions that was raised early in the use of lactated Ringer's solution was

whether the administered lactate might not increase the likelihood of lactic acidosis in an experimental or clinical situation in which hypoxia is a possibility. Lactic acid is the end product of anaerobic metabolism and therefore is noted particularly in hypoxic states. The possibility exists that administered lactate may accumulate under these circumstances and aggravate the situation. On the other hand, there are also theoretical reasons that exogenous lactate should not enhance any existing lactic acidosis. Whatever the argument, experimental proof is required to prove the point one way or another. To this end, Shires' group measured the serum lactic acid concentrations in dogs with hemorrhagic shock which had had replacement therapy with and without lactated Ringer's solution. (Fig 3) The lactate was actually lower in dogs which received lactated Ringer's than it was among those that received blood alone. Shires' interpretation of these events was that the administration of lactated Ringer's results in improved central and peripheral circulation diminishing the likelihood of hypoxia and lactic acidosis.

To whatever extent these experiments support the concept that the administration of lac-

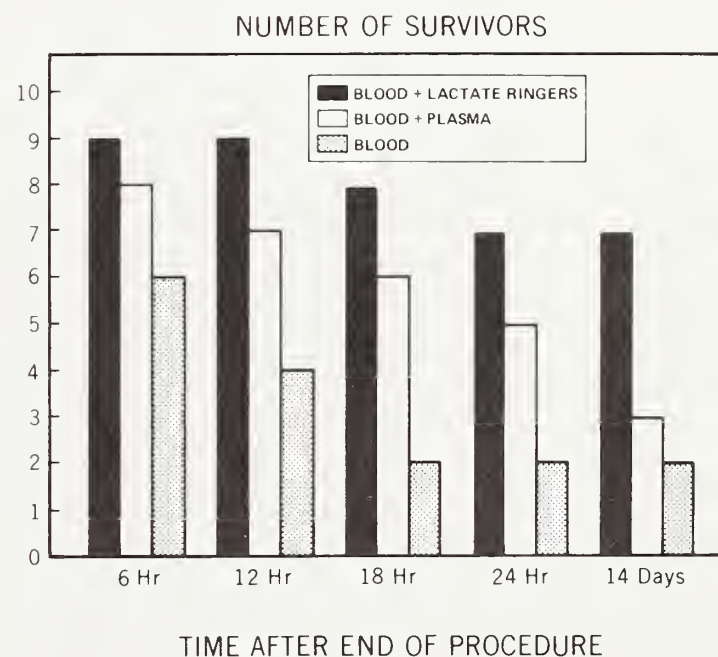


Figure 3. Levels of "excess" arterial lactate in dogs subjected to hemorrhagic shock and treated as indicated. "Excess" lactate is a seldom used term originally calculated to delineate the amount of lactate generated in "excess" of that accounted for by increased production of pyruvate. It was believed that "excess" lactate quantitatively reflected anaerobic metabolism. From McClelland, R.N., Shires, G. T., et al, Balanced salt solution in the treatment of hemorrhagic shock. *JAMA* 199:830-834, 1967. Copyright © 1967, American Medical Association.

tated Ringer's under these experimental conditions does not predispose to lactic acidosis, the answer remains incomplete. Would other solutions that expand ECFV be even better? Comparisons were not attempted. Members of the Departments of Surgery and Medicine at the University of Oklahoma Health Sciences Center in Oklahoma City have combined plans to try to answer that question in experimental animals.

INCOMPATIBILITIES

There are some incompatibilities with the injection of lactated Ringer's solution and these are enumerated as follows:

Amphotericin B (Fungizone), calcium disodium edetate (Versenate), chlortetracycline (Aureomycin) HCL, cortisone (Cortone) acetate, ethamivan (Emivan), ethyl alcohol, histamine diphosphate metaraminol (Aramine) bitartrate, oxytetracycline (Terramycin) HCL, sodium bicarbonate, thiopental (Pentothal) sodium

There are several contraindications to the administration of lactated Ringer's solution. They are (1) hyperkalemia (2) hypercalcemia (3) metabolic alkalosis (4) lactic acidosis.

SUMMARY

In experimental hemorrhagic shock, trauma, and burns, solutions designed to expand extracellular fluid volume, eg lactated Ringer's (Hartmann's solution) are advantageous. Whether or not lactated Ringer's solution (Hartmann's) is the best solution remains to be determined.

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P.O. Box 26901, Oklahoma City, Oklahoma 73190

Oklahoma Children's Memorial Hospital 1979

GEORGE H. GARRISON, MD

Fifty Years in Review

At the outset on this happy occasion, I wish to express my appreciation and thanks to the numerous individuals who have helped me obtain facts, figures, and special information incorporated in this manuscript.

Fifty years in retrospect is but a short dream when compared to a half-century in the future, which appears to be a long time, a very long time. The former has gone with an ever increasing tempo while the latter stretches out to the limits of our imagination. Memory alone is not sufficient background. Memory may exaggerate, even fabricate, but can sometimes come up with interesting facts.

October, 1928, was the time of dedication of the Crippled Children's Hospital and the Medi-

cal School Building of the University of Oklahoma. Three months later, January 1929, I came to Oklahoma City for the private practice of pediatrics, and the presence of these facilities was the determining factor in that decision.

This institution was dedicated as the "Crippled Children's Hospital," carved in stone above the entrance on NE 13th Street. Whether this wording "Crippled Children's Hospital" had any real significance or not, the administration and utilization of the hospital at that time was largely under the control of the department of orthopedics even to the allotment of beds for other services, understandably not always with complete harmony.

Pediatrics became a separate department of the medical school in 1930 with Dr Wm. M. Taylor as its head. That same year I was appointed instructor in pediatrics. When Dr Taylor retired as head of the department about 1940, Dr Clark H. Hall ably succeeded him until the arrival of Dr Henry Streng, first full-time head of the department in 1947. Though Dr Streng was the first full-time head of the department of pediatrics, the first full-time department head in the clinical years of the medical school was, I believe, Dr Paul Colonna, in orthopedics, with his office in the children's hospital.

Presented on April 19, 1979, at the Dedication of the new auditorium during the fiftieth celebration of the dedication of the Children's Memorial Hospital. This talk was based in part on lectures, "Fifty Years in Pediatric Practice," in the History of Medicine elective course, College of Medicine, University of Oklahoma at Oklahoma City.

To Dr Henry Streng who became the first full-time head of the department of pediatrics in the stressful period following World War II and who, under most difficult circumstances of budget and professional help for ten years, was able to maintain pediatrics as an active and growing department, we acknowledge our gratitude. This gratitude extends also to Dr Theodore Pfundt who was acting head of the department during the interval between Dr Streng's departure and the arrival of Dr Riley.

In 1958 Dr Harris D. Riley, Jr., came as professor of pediatrics and the head of the department which consisted of one full-time, two part-time physicians and one house officer. Under his direction the department grew to 50 or 60 full time professional staff with residents, fellows, subspecialization units in cardiology, surgery, and radiology, to name a few. Also, there were the infectious disease laboratory, the birth defects center, the child study center, pediatric pharmacology unit and the first division of children's psychology in pediatrics, elevating the department to one of national significance and recognition.

It was his dream also someday to have a new children's hospital. When Mr Lloyd Rader, Director of DISRS, shared this vision with him and was able to present a workable plan for financing it, the idea culminated in this beautiful, efficient hospital we see today; a hospital planned with great foresight, a hospital planned also with consideration for the family of the patient, a hospital furnished with deliberate care and concern, complete with most modern equipment in every area, and an unusually competent, devoted professional staff, all of which adds up to a unit equal to any.

One cannot overemphasize that a physical plant such as the above does not necessarily make a worthy institution. It requires also professional leadership of high quality with study, investigation, and research ever going on as well as keen clinical evaluation of the patients' problems and the response to the treatment afforded them. These we have. Continued investigation and research are vital for an institution to grow and expand its influence and benefits.

In 1928 the Lew Wentz School was opened providing two classrooms, an auditorium, an office, moving picture equipment and projec-

tion lanterns, Mrs Grace B. Smith in charge, for the purpose of supplementing the children's schooling when hospitalized for several weeks or months. Today with an average of 90 students and a staff of 17 teachers and aids working in cooperation with physiotherapy and occupational therapy the school provides for the children's educational needs in great detail. It has all testing material, equipment and trained personnel to evaluate the learning capability where necessary and prepares a schedule for each child according to its needs from early infancy through an accredited high-school level.

The school of nursing in the earlier years offered a two-year and later a three-year training program. Now its program leads to a baccalaureate degree, masters degree and continuing education in nursing with 175-190 students in the third and fourth years.

While we were unable to separate the admissions to Children's Hospital from those in University Hospital in 1928, we do have the budget of Children's Hospital for that year, \$37,880 for salaries and \$109,500 for maintenance. In 1931 \$81,250 for salaries and \$102,000 for maintenance. In 1978 this hospital's budget was \$13,000,000 for salaries and over \$1,000,000 for maintenance. In the same year, 1978, there were 118,000 visits to the outpatient department and a 70% to 75% occupancy of the 275 available hospital beds.

Illnesses the first 20 years after opening the hospital were the usual contagious diseases of childhood, some malaria, feeding problems, typhoid, venereal infection, pneumonia and meningitis.

There was almost never a time in that period when the hospital did not have cases of pneumonia with empyema, appendicitis with perforation and peritonitis, acute osteomyelitis, mastoiditis, and poliomyelitis. Handicapped children, from faulty development, were in the hospital for long stays while the staff tried to salvage what function was possible.

We had only a few medicaments, that one could classify as specific in effect, at the time of my graduation in medicine 55 years ago. It may be interesting to mention other treatments at our disposal — cold, heat, poultices, blood-letting, diet, bed rest, intravenous and intraperitoneal fluids, and blood transfusion.

As a part of the management, some patients

with pneumonia were placed out-of-doors in mid-winter. As an example of the use of heat, aside from local application, we gave patients with severe unresponsive illnesses injections of boiled skim milk into the muscle, mercurochrome solution or typhoid vaccine intravenously to produce high fever up to 104° to 106°. Occasionally there were instances of almost miraculous clinical improvement. If the patients treated with typhoid vaccine in the vein were not helped with their problems, we hoped they were at least protected from typhoid fever for a while.

With the progress made in the decades of the '30's and '40's in immunizations against the contagious diseases of childhood and specific modes of therapy with introduction of the sulfonamides, penicillin and the other antibiotics, the later appearance of polio vaccine and finally measles, mumps, rubella vaccine, the whole picture of pediatrics changed. Along with all of these changes came new laboratory procedures, and radiologic techniques applicable to diagnosis and evaluation of disease conditions in children, not the least of which was the ability to do some of these studies on minute quantities of blood.

In the last 25 years also greater knowledge and skills in the field of anesthesiology have made possible to a large degree the phenomenal progress in surgery of the chest, the circulatory and nervous systems.

In 1959 was the first case of open heart surgery at Children's Hospital. Doctor Gil Campbell and Dr Rainey Williams were the surgeons; Dr Glenn Caylor, the pediatric cardiologist. From then until about 1970 all cardiac surgery for both University and Children's Hospital was done in Children's Hospital, as were the catheterizing laboratory services.

Doctor Webb Thompson came in July, 1963 as pediatric cardiologist when one or two cases of open heart surgery were scheduled a month, now it is two or three cases a week.

The first intensive care unit (ICU) was set up by the departments of pediatrics and surgery serving both hospitals starting with one bed and three nurses whereas now it is 18 beds and serving pediatrics, medicine and surgery, in this hospital only.

In September of 1977 Dr Owen Rennert came to us as professor of pediatrics and head of the department. Having talked with Dr Rennert and heard his enthusiastic plans for

areas of growth and development we can look confidently to the future.

During the early '30's, there were pediatricians only in Tulsa and Oklahoma City. Because of that, we in Oklahoma City were called in consultation on occasion to cities south, north and west of us; McAlester, Ardmore, Lawton, Elk City, Alva, Ponca City, and areas in between. On such occasions we always went equipped to do lumbar punctures and aspiration of the chest. Most of the patients then were brought to this hospital for definitive management.

Personally my own schedule on these calls, when feasible, was to leave as soon as possible after finishing the day's work in the office, see the patient and return the same night, always taking a blanket and pillow for my return sleep on the back seat of the car, while my wife did the driving. We did vary that schedule, however, on two occasions. In 1935 a physician who asked me to come to Alva, Oklahoma, suggested he would send a plane for me if I had no objection to flying. I told him that was satisfactory as I was accustomed to flying. *I had flown once.* When the plane arrived it was about the size of today's compact car, an open air conditioned model with a small seat immediately back of the pilot and no space for my bag except on my lap. We cruised only a short distance above the tree tops, traveling comfortably until we made a bank to descend. It was then I suddenly questioned the wisdom of my decision to fly. The second time was about eight years later when requested to come to Woodward Air Base, the physician said he would send a plane for me. Showing aerial progress in that short time we rode in a military five passenger observation plane with a pilot and co-pilot.

LOOKING TO THE FUTURE

1. Increasing knowledge in nutrition and food habits conceivably can enable us to lessen

George H. Garrison, MD, FAAP, a graduate of Washington University School of Medicine, has been certified by the American Board of Pediatrics. In addition to his private practice in Oklahoma City, Doctor Garrison is Clinical Professor of Pediatrics at the University of Oklahoma Health Sciences Center. Among his medical affiliations are the American Academy of Pediatrics and the American College of Physicians.

atherosclerosis, a leading cause for cardiac surgery.

1-A. We need to learn to control illnesses whose total effect may not be known until years later such as:

- Streptococcal infections
- obesity, urinary tract infections
- recurrent bronchitis and viral diseases

2. We must prepare for increased need for emotional guidance, especially for the teenagers in the area of prevention and earlier practical benefits from treatment. With 20% to 25% of the children born the past five years coming from unwed mothers and 90% of those babies being taken home by the mothers into situations mostly far from ideal and in many instances wholly unacceptable, we can expect emotional instability in the decade of the '90's such as we have not experienced before.

3. We must look hopefully for far better preparation for marriage and parenthood in the immediate years ahead, and regain some kind of acceptable family unit.

4. The federal government will have more input into health care.

5. With the help of fetoscopy and chemistry, we may reasonably expect more knowledge of the fetus, which antenatal information must be utilized.

6. As we are progressing in our surgical experiences in use of prostheses and transplants we will have more benefits for children.

7. When the depth of burns can be accurately determined in the first 6-to-12 hours after injury, the surgeons tell us they may initiate procedures at once which could lessen the overall damage to the patient.

We visualize great advances in our knowledge of genetics and endocrinology. From conception of the fetus, our pediatric concern, along with the obstetrician, is growth and proper development; then after birth, to make available such care and supervision as will add to and improve the quality of life.

Having passed in review before you today some of the outstanding changes which have occurred in pediatrics and the life of OCMH, particularly the relationship and effect on the local scene, we feel assured that association with this institution in the years ahead will be more fruitful and rewarding even than it has been in the past.

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Brief Summary

INDICATIONS: For the prevention and treatment of nocturnal recumbency leg muscle cramps, including those associated with arthritis, diabetes, varicose veins, thrombophlebitis, arteriosclerosis, and static foot deformities.

CONTRAINDICATIONS: Because of the quinine content, Quinamm is contraindicated in women of childbearing potential, in pregnancy, in patients with known quinine sensitivity, and in patients with glucose-6-phosphate dehydrogenase deficiency. Hemolysis (with the potential for hemolytic anemia) has been associated with a G-6-PD deficiency in patients taking quinine.

PRECAUTIONS: Thrombocytopenic purpura may follow the administration of quinine in highly sensitive patients. Recovery will follow withdrawal of the medication. Cinchona alkaloids, including quinine, have the potential to depress the hepatic enzyme system that synthesizes the vitamin K-dependent factors. The resulting hypoprothrombinemic effect may enhance the action of warfarin and other oral anticoagulants.

ADVERSE REACTIONS: Aminophylline may produce intestinal cramps in some instances, and quinine may produce symptoms of cinchonism, such as tinnitus, dizziness, and gastrointestinal disturbance. If ringing in the ears, deafness, skin rash, or visual disturbances occur, the drug should be discontinued.

DOSAGE AND ADMINISTRATION:

1 tablet upon retiring. When necessary, 1 additional tablet may be taken following the evening meal.

Product Information as of September, 1977
U.S. Patent 2,985,558

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Neonatal Screening Program Expands

On July 2, 1979, the Oklahoma State Department of Health embarked upon the pilot phase of its Neonatal Hypothyroidism Screening Program. Screening for neonatal hypothyroidism will be done in conjunction with the current PKU Screening Program. Hospitals with the largest number of births already participating in the PKU screening program were selected in order to maintain an adequate volume of samples during the pilot phase of the program while reducing the number of variables to a minimum. After any indicated modifications are made during the pilot phase, which is anticipated to be 6-12 months duration, it is planned to make the program available statewide.

All specimens submitted for hypothyroidism screening will initially undergo testing for T₄ by radioimmunoassay. Specimens in which the initial T₄ falls in the lower ten percent will then be tested for TSH again by radioimmunoassay. Those specimens which show an elevation of TSH will require follow-up evaluation with serum studies to determine the presence of neonatal hypothyroidism. The remaining specimens which undergo TSH determina-



News From
The Oklahoma State
Department of
Health

tion will be reported as normal except for those which fall in the lowest one percent of each day's run for T₄ determinations.

The hypothyroidism screening program in Oklahoma will be comprehensive in that it will also seek to detect thyroxine-binding globulin (TBG) deficiency and pituitary or hypothalamic hypothyroidism. A repeat filter-paper blood spot test for T₄ determination will be requested for all those initial specimens which fall in the lowest one percent by T₄ screening. If the repeat T₄ level is again in the lowest one percent, evaluation with serum studies would need to be done for these disorders.

For further information regarding the hypothyroidism screening program, write or contact the Pediatrics Division, Maternal and Child Health Service, Oklahoma State Department of Health at (405) 271-4471. □

COMMUNICABLE DISEASES IN OKLAHOMA FOR JUNE, 1979

DISEASE	JUNE	JUNE	MAY	TOTAL TO DATE	
	1979	1978	1979	1979	1978
Amebiasis	1	—	2	8	15
Aseptic Meningitis	9	6	7	22	25
Brucellosis	1	1	—	1	2
Encephalitis, Infectious	4	3	2	10	9
Gonorrhea (Use Form ODH-228)	1164	1300	1012	6512	6175
Hepatitis A	18	27	19	114	183
Hepatitis B	5	13	5	40	74
Hepatitis Unspecified	23	12	18	75	100
Measles (Rubeola)	—	—	2	22	11
Meningococcal Infections	2	—	3	21	15
Pertussis	—	2	1	3	8
Rabies (Animal)	38	17	29	151	116
Rocky Mountain Spotted Fever	26	12	3	29	20
Rubella	—	2	4	22	11
Rubella (Congenital)	—	—	—	—	—
Salmonellosis	39	23	25	121	103
Shigellosis	16	23	20	93	135
Syphilis (Use Form ODH-228)	9	10	7	52	45
Tetanus	—	1	—	—	2
Tuberculosis	32	31	20	179	173
Tularemia	5	3	—	5	3
Typhoid Fever	—	—	—	—	2

OSMA Trustees Meet

The OSMA Board of Trustees has approved a special report of an Ad Hoc Committee on Obsolete Medical Procedures, and in doing so has cleared the way for Oklahoma Blue Shield to cease reimbursement for procedures now considered either medically or scientifically obsolete.

The list of more than 50 obsolete procedures was identified by the American College of Surgeons, American College of Radiology, the American College of Physicians and the National Association of Blue Shield Plans. The list was originally referred to the Council on Members Services, which in turn referred the matter to a special task force made up of George Ben Carter, MD, radiologist; Galen Robbins, MD, cardiologist; G. Rainey Williams, MD, thoracic surgeon; and Tony G. Puckett, MD, obstetrician and gynecologist. A special ad hoc committee agreed with the report with three exceptions: angiocardiology, single plane, supervision and interpretation in conjunction with cineradiography, angiocardiology, multi-plane, supervision and interpretation in conjunction with cineradiography; and angiography, extremity, unilateral, supervision and interpretation only, single-view unless emergency. It was the recommendation of the ad hoc committee that these three procedures were not obsolete and that Oklahoma Blue Shield should continue to reimburse for them. The Board of Trustees concurred.

Those procedures found to be obsolete and payable only upon satisfactory justification are shown below:

Bronchoscopy, with injection of contrast medium for bronchography.
Bronchoscopy, with injection of radioactive substance.
Ligation of internal mammary arteries, unilateral.
Ligation of internal mammary arteries, bilateral.
Radical hemorrhoidectomy, Whitehead type, including removal of entire pile bearing area.

Omentopexy for establishing collateral circulation in portal obstruction.
Kidney decapsulation, unilateral.
Kidney decapsulation, bilateral.
Perirenal insufflation.
Nephropexy; fixation or suspension of kidney (independent procedure), unilateral.
Circumcision, female.
Hysterotomy, non-obstetrical, vaginal.
Supracervical hysterectomy: subtotal hysterectomy, with or without tubes and/or ovaries, one or both.
Uterine suspension.
Uterine suspension, with presacral sympathectomy.
Ligation of thyroid arteries (independent procedure).
Hypogastric or presacral neurectomy (independent procedure).
Basal metabolic rate (BMR).
Protein bound iodine (PBI).
Ballistocardiogram.
Icterus index.
Phonocardiogram with interpretation and report, and with indirect carotid artery tracing or similar study.
Angiocardiology, utilizing CO₂ method, supervision and interpretation only.
Angiography, coronary, unilateral selective injection supervision and interpretation only, single-view unless emergency.
Amylase, blood isozymes, electrophoretic.
Chromium, blood.
Guanase, blood.
Zinc sulphate turbidity, blood.
Skin test, cat scratch fever.
Skin test, lymphopathia venereum.
Circulation time, one test.
Cephalin Flocculation.
Congo red, blood.
Hormones, adrenocorticotropin quantitative animal tests.
Hormones, adrenocorticotropin quantitative bioassay.
Thymol turbidity, blood.
Skin test, actinomycosis.
Skin test, brucellosis.
Skin test, leptospirosis.
Skin test, psittacosis.
Skin test, trichinosis.
Calcium, feces, 24-hour quantitative.
Starch, feces, screening.
Chymotrypsin, duodenal contents.
Gastric analysis pepsin.
Gastric analysis, tubeless.

Autogenous vaccine.
Calcium saturation clotting time.
Capillary fragility test (Rumpel-Leede) (independent procedure)
Colloidal gold.

Those procedures requiring justification when performed for the specific condition indicated are listed below:

Description	As Treatment For
Fascia lata by stripper	lower back pain
Fascia lata by incision and area exposure, with removal of sheet	lower back pain
Ligation of femoral vein, unilateral	post-phlebitic syndrome
Ligation of femoral vein, bilateral	post-phlebitic syndrome
Excision of carotid body tumor without excision of carotid artery; with excision of carotid artery	asthma
Sympathectomy, thoracolumbar, unilateral	hypertension
Sympathectomy, thoracolumbar, bilateral	hypertension
Sympathectomy, lumbar, unilateral	hypertension
Sympathectomy, lumbar, bilateral	hypertension
Splanchnicectomy, unilateral	hypertension
Splanchnicectomy, bilateral	hypertension

In other action the Board also reaffirmed its position on Health Maintenance Organizations (HMO), although the Board adopted some new wording also. Basically the position of the OSMA is to oppose the concept of HMOs because there is nothing inherent in such an organization which would solve Oklahoma's health care problems or the problems of indigent care, the distribution of physicians or medical care costs. The statement also points out that HMOs by their very design deny patients the right of freedom of choice of physicians. It is also the position of OSMA, however, to approve "of the concept of neutral public policy and fair market competition among all systems of health care delivery."

The original OSMA position was adopted November, 1974. The new language was adopted at the August 4 meeting.

In other action the Board also approved the AMA-OSMA jail project which was reported in last month's *Journal*; accepted the report of the Council on Medical Education which allowed

one CME exemption request but disallowed two others; asked that the report of a Joint Task Force on Nurse Practitioners be revised and brought back to the board; reviewed nominees for the University of Oklahoma College of Medicine's Board of Admissions; and approved a nominee to the Oklahoma Health Systems Agency Board of Trustees.

The next Board of Trustees meeting will be held November 11, 1979, at OSMA headquarters in Oklahoma City. It will commence at 1:00 PM. □

AMA OVERHAULS POSITION ON CHIROPRACTIC

Although the AMA will continue to warn the public about the hazards of relying upon spinal manipulation to treat a number of human ailments, the AMA House of Delegates voted in July to abandon its blanket condemnation of chiropractic ads as an "unscientific cult."

The AMA, as well as a number of county and state medical societies, have been embroiled in restraint of trade lawsuits involving chiropractors, largely as a result of the position the AMA adopted in 1966. The House of Delegates then adopted the position "that chiropractic is an unscientific cult whose practitioners lack the necessary training and background to diagnose and treat human disease." The 1966 policy went on to say that chiropractic constitutes a hazard to rational health care in the United States and that all voluntary association with cultists was unethical. Supporting the new policy statement, AMA Executive Vice-President, James H. Sammons, MD, said, "To deliberately place ourselves in violation of the anti-trust statutes so that we can go home and self righteously say that we have done so is sheer foolishness. It places every doctor in America in greater jeopardy than he is in already."

In effect the policy change wipes out the "unscientific cult" and the position that voluntary association with chiropractors is unethical. The new policy statement reserves the right of a physician to choose those persons whom he or she will accept as patients and to refer the patient to "a licensed, limited practitioner . . . whenever he believes that this will benefit the patient." □

1980 Labor-HEW Appropriations Bill Gains Agreement

House and Senate conferees agreed in July to the conference report on HR 4389 . . . the 1980 Labor-HEW Appropriations bill. As it currently stands, the bill would provide:

AGENCY	AMOUNT
Health Services Administration	\$1,325,278,000
Community Health Centers	\$320,000,000
Hypertension programs	\$20,000,000
Home health services	\$5,000,000
National Cancer Institute	\$1,000,000,000
National Institute of Arthritis Metabolism and Digestive Diseases	\$341,246,000
National Institute of Neurological and Communicative Disorders and Stroke	\$242,000,000
National Institute on Aging	\$70,000,000
Health Resources Administration	\$452,243,000
Center for Disease Control	\$282,415,000
Capitation Grants to Schools of Medicine	
Osteopathy and Dentistry	\$81,268,000
Total 1980 HEW Budget	\$60,236,654,000



Special Committee Studying Health Issues

A special legislative Committee on the Health Care Delivery System is currently studying a number of health issues to determine if legislative answers are called for. The committee is chaired by Senator Al Terrill of Lawton. The Vice-Chairman is Representative Hannah D. Atkins of Oklahoma City. Members from the Senate are Ernest Martin, Ardmore, John R. McCune, Oklahoma City, Charles Vann, Pauls Valley, and Phil Watson, Edmond. Members from the House are Charles Cleveland, Tulsa, Cleta Deatherage, Norman, Wiley Sparkman, Grove, and George Vaughn, Big Cabin.

Those issues under study by the committee include hospital cost containment, standards for licensing nurse practitioners, standards of licensure for practice of midwifery, and medical malpractice.

After the study is completed, the special committee will determine whether or not legislation should be introduced in the next session to deal with any of the problems it has identified.



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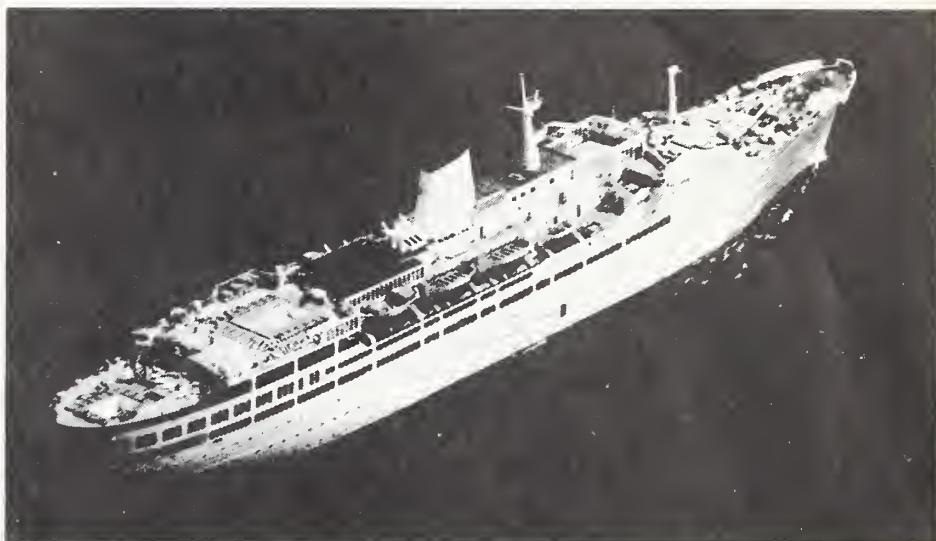
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Women Still Look First to the Doctor For Information About Medications

Most women still look first to their doctor for information about the medications he prescribes for them.

Less than half of the women consider the printed patient package insert as an important source of information about their medicines.

These were the findings of a survey conducted by the University of Rochester School of Medicine and Dentistry, Rochester, New York, and reported in the August 10 *Journal of the American Medical Association*.

The study involved some 150 women who were receiving estrogens to suppress flow of breast milk following childbirth. They were asked questions to determine how much they knew about the benefits and risks of the estrogens and where they had learned this information.

Legislation is now pending before Congress that would require patient package inserts for all prescription drugs. Such leaflets already are required for estrogens.

Consumer advocates insist that the inserts should be right-to-know documents, providing patients with sufficient information about harmful drug effects, drug interactions, and risks to allow them to participate actively in the decision to take the medicine.

Most patients in the survey (91.8 per cent) considered their physicians to be "very important" information sources. Other health professionals were also considered very important by a majority of the respondents (nurses, 67.3 per cent; pharmacists, 55.6 per cent).

Less than half of the subjects (40 per cent) considered the patient package insert to be very important. Less than 20 per cent considered media (newspapers, magazines and television) to be very important sources.

In general, the survey found, women were knowledgeable about the proper uses and side effects of estrogens.

Although not the most important information source, the package inserts did serve a purpose, the survey shows. Patients apparently can learn from the insert, as shown by its positive affect on scores. Thus, the researchers say, to some extent the educational purpose of the insert is being served.

But, the report concludes, the estrogen patient package insert cannot be judged entirely effective. It did not result in the patient's active participation in the therapeutic decision, the stated goal of its proponents. □

Arkansas-Oklahoma Cancer Forum Scheduled

The eleventh annual Arkansas-Oklahoma Cancer Forum for physicians and allied health professionals will be presented September 27 and 28, 1979, by the Arkansas and Oklahoma Divisions of the American Cancer Society at the Sheraton Inn, Ft. Smith, Arkansas.

Robert Janes, MD, president of the Arkansas Division, and John B. Nettles, MD, president of the Oklahoma Division, serve as co-chairmen for the Cancer Forum. Attendance is anticipated to reach 500 for what has become the major cancer seminar for eastern Oklahoma and western Arkansas.

Specialists on the program will include James P. Muldoon, MD, Clinical Professor of Surgery at Michigan State University Medical School, who will present developments in "Cancer of the Colon and Rectum."

Kathleen Foley, MD, Coordinator, Pain Clinic at Memorial Sloan-Kettering Cancer Center and Assistant Professor of Neurology at Cornell University Medical College will present "Diagnostic and Therapeutic Approach to Pain."

Robert C. Eyerly, MD, of Geisinger Medical Center, Danville, Pennsylvania, will describe "Hospice Concepts for the Advanced Cancer Patient." Dr Eyerly serves as Chairman for the National Hospice Committee of the American Cancer Society.

The Seminar continues to receive the cooperation of the University of Oklahoma Health Sciences Center. Accreditation has been applied for through the American Academy of Family Physicians and in Category I for the Physicians Recognition Award of the American Medical Association. Additional accreditation has been applied for from the University of Arkansas College of Nursing and for the Continuing Education Approval and Recognition Program of the Oklahoma Nurses Association.

Sessions are open to all members and students of the medical and allied health professions with no registration fee. □

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W. K. Warren, Tulsa, was honored as the recipient of a special Citation of a Layman Award from the AMA last month. Warren received a similar award last year from OSMA and has been similarly honored by the Oklahoma Hospital Association. He is the founder of Warren Petroleum Company and a major contributor to both St Francis Hospital and St John's Hospital.

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AMA Withdraws From LCCME

Backing the AMA Council on Medical Education and the AMA Board of Trustees, the AMA House of Delegates voted at the July meeting to withdraw from the Liaison Committee on Continuing Medical Education (LCCME). The AMA will immediately resume its role as a primary accreditor of CME-sponsoring organizations through the establishment of a council. The action recognizes state medical associations as accrediting bodies for institutions and organizations providing local and intra-state CME programs.

In its report the Council noted that the views of practicing physicians have not received appropriate consideration by the LCCME, that the LCCME has proposed a restructuring of the accreditation process that would alter the role of state medical associations and that there has been a disregard for agreements among LCCME members.

Continuing medical education accreditation was conducted by the AMA for more than a decade before the LCCME took over in 1977. The AMA has provided staff for this organization, and through 1978 all the costs of accreditation. Remaining participating members of the LCCME are the Association of American Medical Colleges, the American Board of Medical Specialties, the Council of Medical Specialty Societies, the American Hospital Association, the Association for Hospital Medical Education, and the Federation of State Medical Boards. The LCCME also has a public representative and a federal government representative.

Immediate past-president Tom E. Nesbitt, MD, told the house, "It's time to bring CME back into the fold of the AMA, where it belongs." Describing the AMA's problems with the LCCME as "monumental," he said, "I've seen hidden agendas at almost every meeting."

A reference committee report calling for the Board of Trustees to attempt to resolve the problems was rejected by the House.

Under the arrangement with the LCCME, the OSMA had responsibility for surveying institutions which wanted to conduct accredited CME courses. The OSMA forwarded its accreditation recommendation to the LCCME, which ultimately made the final decision.

Under the new arrangement, OSMA will have the survey responsibility as well as the

decision-making responsibility. Those institutions already surveyed and accredited are not affected by this action in any way. □

Compromise Reached on Health Planning Amendments

After a rushed House-Senate Conference held just before Congress left for its August recess, a compromise was reached on S 544, the Health Planning Act Amendments. The conference report will be sent back to the two legislative chambers for final approval. The bill is expected to be sent to President Carter for his approval after Labor Day.

In its most significant action, the conference committee specifically rejected a Senate-backed provision to *require* states to enact broadened certificate-of-need (CON) requirements under the planning law applying to physicians' offices and to allow states to set even wider CON application. Instead, the conference adopted certificate-of-need language from the House-passed version of S 544 that *allows* states to adopt CON requirements for major medical equipment used for hospital inpatients (regardless of the location of the equipment). Importantly, the bill language would prohibit, beginning October, 1982, states from adopting CON requirements that go beyond the limitation in S 544.

An exemption for Health Maintenance Organizations and other prepaid providers from health planning certificate-of-need requirements was strictly limited by the conferees to only those HMOs that meet Social Security capital expenditures limitations (Sec. 1122) and have 50,000 or more enrollees.

Also, the conference retreated from a House-adopted provision in S 544 that prohibited health planning agencies from attaching conditions to a certificate-of-need that were unrelated to the subject of the CON application. The conferees delicately altered the provision to narrow the present scope of criteria that a Health Systems Agency may employ in making CON determinations. □

OSMA
ANNUAL MEETING
MAY 8 - 10, 1980
OKLAHOMA CITY, OKLAHOMA

DEATHS

FRANCIS W. PRUITT, MD
1902-1979

Francis W. Pruitt, MD, 76, Tulsa internist, died June 20, 1979. A former consultant to the White House in Washington, Dr Pruitt was graduated from Indiana University School of Medicine and spent 31 years in military service before coming to Tulsa in 1959. A Life Member of the OSMA, he was active in many medical organizations. He was a Diplomate of the American Board of Internal Medicine, a Fellow of the American College of Physicians, the Royal Society of Medicine (London) the International Society of Internal Medicine and a

member of the American Heart Association.

JOHN H. ROBINSON, MD
1894-1979

A well-known, retired Oklahoma City surgeon, John H. Robinson, MD, died July 30. Doctor Robinson was graduated from the University of Oklahoma College of Medicine in 1925, where he later was an instructor in the department of surgery. A Life Member of the OSMA, Dr Robinson was affiliated with the American College of Surgeons, the Southwest Surgical Society and the International College of Surgeons. □

Book Reviews

GASTROINTESTINAL PAN-ENDOSCOPY, Leonidas H. Berry, MS, MD; 632 pages; published by Charles C. Thomas, Springfield, Illinois, 1974.

Gastrointestinal Pan-Endoscopy by Leonidas H. Berry, MS, MD, brings up-to-date the field of endoscopy as applied to digestive disease in man. The book covers the history of gastrointestinal endoscopy up to the latest developments in fiberoptic pan-endoscopy and peritoneoscopy. Pertinent anatomic, physiologic, and physiopathologic background is discussed at the beginning of each chapter. Techniques are meticulously and clearly described and findings are well-illustrated. The book is not just another endoscopy atlas, but rather a treatise of endoscopic pathology in which color plates are used to illustrate the discussions on each topic.

An impressive number of internationally recognized experts in the field have collaborated in the preparation of the various chapters.

This book represents an excellent aid for those being initiated in endoscopic work, as well as for the practicing gastroenterologist.

Ramon Torres-Pinedo, MD

MICROBIOLOGY—1974. Edited by David Schlessinger. American Society for Microbiology, Washington, DC, 1975, 314 pages. \$9.00 (member), \$16.00 (non-member).

MICROBIOLOGY-1974 represents the first volume in a new annual series published by the American Society for Microbiology (ASM) and is designed to bring to the reader the proceedings of recent important symposia, round tables, and conferences. The fundamental purpose is to allow scientists to better keep up with new developments in the field. This volume includes the proceedings of three unrelated symposia held by the ASM during 1974. The first one, which takes up approximately three-fourths of the book, was a special conference on bacterial plasmids held in January, 1974. The other two are symposia from the national ASM meetings. One is concerned with *Vibrio parahaemolyticus* and the other with the roles of iron in host-parasite interactions.

The proceedings of the symposium on plasmids are divided into four major categories: 1) Clinical Aspects of Plasmids; 2) Molecular and Genetic Analysis of Plasmids; 3) Replication of Plasmids; 4) and Biological Activities of Plasmids. Each major category contains four to

seven chapters. The authors of the 24 papers are among the leading investigators in the field.

The proceedings of the two symposia from the national meetings review research and other aspects of *Vibrio parahaemolyticus* and the roles of iron in various infections.

Technically, the book is well done. The printing and reproductions are quite clear. It can be recommended for research workers in the field, especially scientists concerned with bacterial genetics, as well as medical libraries.

Harris D. Riley, Jr., MD

CONFEDERATE STATES MEDICAL AND SURGICAL JOURNAL. Library of the New York Academy of Medicine. Metuchen, New Jersey: Scarecrow Press, 1976, 290 pages with illus. Price \$22.50.

Thanks to the New York Academy of Medicine, now available is a rare and important documentary about military and civilian medicine in the South of a century ago. The library of the Academy has arranged for the reprinting of this extremely rare journal, *Confederate States Medical and Surgical Journal*, published by Ayres and Wade of Richmond. This journal had a relatively brief life (1864-65) during the last two years of the War-between-the-States. Only 14 issues were published, the print run was small and few of those have survived. Thus, the journal is almost unknown. Records of medical practice during the Confederacy are scant because the records of the Surgeon General's office were lost during the fire which destroyed Richmond at the end of the war and it is unlikely that the United States reconstruction government would have permitted the publication of an official medical history of the Confederate States.

The first volume comprised twelve monthly issues beginning with January, 1864, and contained 224 pages. The first article in the initial issue is by Joseph Jones, MD, a Confederate medical officer whose military medical experience laid the foundation for several important contributions he was to make subsequently. Illness disabled and killed far more men than battle wounds, but therapy — both medical

and surgical — had made only indifferent progress since the Revolution. Before the War, the South had depended on imported drugs, which along with all other medical supplies including textbooks were cut off by the Federal blockade, and the *Journal* devotes substantial attention to drug substitutes indigenous to the Confederacy. Papers in the *Journal* reflect a current, basically Hunterian, view of inflammation as both a defensive and reparative process whereby fibrosis precedes revascularization but, if fibrosis fails to occur, suppuration occurs by separation of pus cells from the blood. This view regards postoperative infection with purulent drainage as an anticipated stage in, not a complication of, wound healing.

Volume 2 began with the January, 1865 issue. The prospectus for the second year states,

Thanks to the influence and support of the Surgeon General and Medical Department of the Army and to the warm hearted co-operation of the profession at large, we have the satisfaction of announcing to our friends and readers that the *Confederate States Medical and Surgical Journal* has in one year reached a circulation hitherto unattained by any scientific publication in the South and in spite of many difficulties and drawbacks hope to merit still more the patronage of the Southern medical profession.

However, after two more issues (a total of 14), the *Journal* permanently suspended publication. That it was able to continue publication as long as it did is most miraculous in view of the conditions in the war-time South at that time (1864-65). Virtually every resource of the southern states had been utilized in support of the military effort of the Confederacy. All of the fourteen issues are reproduced in facsimile with a superb introduction by William D. Sharpe, MD, of the New York Academy of Medicine.

This reprint of the *Journal* allows us an accurate reflection of military medicine and the status of medical journalism of more than 100 years ago. For its time, it was a sound professional journal and was certainly not a propaganda forum; its attitude toward the enemy was a dignified and restrained one. The *Journal* published original papers by Confederate physicians and surgeons, reviewed British and continental journals and meetings of learned societies, and disseminated statisti-

cal and administrative information for the Confederate States Army Medical Department and hospitals. Its pages contain contributions by many well-known Confederate physicians — Eve, Flewellen, Gaillard and others. Many editorials emphasized the problems then current. The foreign coverage was as complete as that of any of the northern journals of the time.

What was the journal's impact? The disparaging remarks published by *American Medical Times*, at the time one of the leading journals of the north, contrast sharply with the laudatory and sympathetic opinions of the *Lancet* of London.

This publication affords an unusual opportunity for history-inclined physicians as well as libraries to obtain an important overview of past medical practice in the South under military conditions. *Harris D. Riley, Jr., MD*

THE ETHICS OF TEACHING AND SCIENTIFIC RESEARCH. Edited by Sidney Hook, Paul Kurtz, and Myro Todorovich. Buffalo, New York: Prometheus Books, 1977, 212 pages, \$11.95.

As Sidney Hook states in the Introduction, "the two themes to which this volume is dedicated — the ethics of teaching and the ethics of research — are closely related. Nonetheless, the connecting issues reflect rather different pressures and interests. In the main problems that have provoked a renewed interest in the ethics of teaching stem from the politicization of institutions of higher education, or rather from the politicization of student bodies and faculty members in some of our most prestigious centers of learning. The common law, so to speak, of academic life — the freedom to teach and learn — has been challenged during the last decade or so . . ." More recently, this challenge, formerly an external one, has come from within.

This small volume contains the deliberation of more than a score of thoughtful scientists, philosophers and jurists on the ethics of teaching and of research. Among the questions considered are the meaning of objectivity in teaching, its possibility where value judgments are involved, the difference between objectivity and indoctrination, the place of ethics in the teaching of law, the justification and limits of professional codes of teaching behavior, how and by whom they are to be enforced and what

responsibilities are entailed by the rights of academic freedom. Is the value of knowledge and scientific research absolute? Can it be overridden by other values and considerations? Who is to determine at what point the risks of possible dangerous fallout of scientific knowledge outweigh the possible benefits?

The *Ethics of Teaching and Scientific Research* attempts to answer these and other pressing questions as it presents the proceedings of the Third National Conference of the University Centers for Rational Alternatives held at Rockefeller University, New York City, in April 1975.

This book will be of principal interest to those involved in the two themes, namely teaching and research, with which the monograph deals. *Harris D. Riley, Jr., MD*

BIRTH DEFECTS AND DRUGS IN PREGNANCY. By Olli P. Heinonen, Dennis Slone and Samuel Shapiro. Littleton, Mass.: Publishing Science Group, 1977, pages 516. Price \$75.00.

For the first time, a large prospective study of more than 50,000 pregnancies has been analyzed by specially devised multi-variate statistical methods to evaluate the risks to the fetus of drugs taken during pregnancy. The information from this cohort study is presented in tables, most of which are easily read, adequately discussed, and summarized by pertinent comments at the end of each section. The tables of the association between drugs, maternal disease, and malformations of all types are presented in such a way that they should be of interest to all clinicians and scientists interested in teratology and in epidemiology. No drug in common use was found to be analogous to thalidomide with respect to terato-genesis. However, the study raised certain suspicions which highlight the need for further clinical investigation. Exposure to oral contraceptives and progestational agents, for example, was associated with cardiovascular malformations, the relative risk being almost doubled. Even when the possibility that some women with poor obstetric histories would be included in this group was compensated for, the findings were not significantly changed. The study showed no significant teratogenic risk from anticonvulsants such as phenytoin, an important finding. These and other findings

emphasized that experimental teratology can be suggestive, but never conclusive that a drug may induce birth defect in man. The results of this collaborative study stress the complexity of human teratogenesis. This is a splendid reference book which can be well recommended.

Harris D. Riley, Jr., MD

AN INTRODUCTION TO CLINICAL ENDOCRINOLOGY. By J. A. Thomson, MD, PhD, FRCP, 195 pages, 11 illustrations. Edinburgh, London, and New York: Churchill Livingstone, 1976.

Coming from the Glasgow Royal Infirmary and the Royal Samaritan Hospital for Women, the British touch is very evident in this book. Virtually just a pocketbook, it summarizes concisely current knowledge in endocrinology and endocrine practice. Its emphasis is clinical and basic endocrinology is kept to a minimum and then only when very important. The illustrations tell the story graphically without need for verbose legends. Although the bibliography is scanty, it identifies recently-published review articles and monographs. American readers may find disturbing the extensive use of International Systems of Units (SI). However, conversion factors are provided for those not familiar with this system.

While intended primarily for the undergraduate student, it is equally useful to non-endocrinologists in practice and to nurses and other paramedical personnel wishing a quick survey of the field.

Cosme R. Cagas, MD

NO MAN ALONE: A NEUROSURGEON'S LIFE. By Wilder Penfield. Boston: Little Brown & Co., 1977, Price \$12.50.

Wilder Penfield was a remarkable man with many talents. He was a scholar, an athlete, an administrator, a neuropathologist, and a neurological surgeon of great renown and achievement. The book pictures his life and education from Spokane to Wisconsin, Princeton, Boston, Oxford, London, Johns Hopkins, New York, Madrid, Germany, and finally, to

Montreal as the founder of the Montreal Neurologic Institute.

His mother was determined when her son was only 13 years-old that he win a Rhodes Scholarship, and so the young man tailored himself into an "all-around scholar and athlete and leader of other boys." He fulfilled his life's ambitions. His efforts toward these goals make for fascinating reading. It is the history of the development of the neurosciences because Penfield came in contact with the great leaders in this field of medicine.

His tributes to his associates, William Cone in particular, established the appropriateness of the book's title, *No Man Alone: A Neurosurgeon's Life*. Accounts of the case histories of William Ottmann and Henry Howland lead into Penfield's early attempts to cure epilepsy by surgical means. The important role which the parents of these patients played in establishing the Montreal Neurologic Institute is outlined. The crucial contributions of Alan Gregg and the Rockefeller Institute are emphasized.

The manuscript for this book was completed only a few days prior to the author's death in April, 1976. This book about one of the leaders of this field of medicine makes for interesting reading.

Harris D. Riley, Jr., MD

INFECTIOUS DISEASES OF CHILDREN AND ADULTS. 5th edition. Saul Krugman and Robert Ward. St. Louis: C. V. Mosby Company, 1973, 494 pages. Price \$21.50.

This volume will be welcomed by those who have used the previous four editions. The first four editions have been directed to infectious diseases of children, but the fifth now also includes those of adults. This is not an encyclopedia of infectious diseases, but includes most of the disorders important in this country, particularly those in which the writers have the most experience and interest. Some important chapters have been added — on syphilis, gonorrhea, and tuberculosis. Certain subjects would have benefited by an expansion of the discussion, but, overall, there is an excellent synthesis of laboratory and clinical features put together in a well-illustrated, smooth and free writing style. It unquestionably is the most useful and authoritative volume on the subject.

Harris D. Riley, Jr., MD

Waiting Room Blues

A friend, who at predetermined intervals is admitted for specific periods to a large city hospital, has to sit each time for hours in the waiting room before her file is processed and she is admitted to her ward. On her last admission, her husband, an executive of excellent credit rating, tried to relieve her of this strenuous and stressful admitting procedure while the patient waited in the nearby home of a friend. This was not acceptable to the admitting clerk. Her husband had to bring the patient after all and she had to wait her turn, just as before. My personal experiences have been better and might suggest a different solution to this problem. I was admitted immediately to my room, later a clerk came to obtain the necessary fiscal data regarding insurance, etc. Analogy with a hotel which receives pre-registered guests or tours without great delay seems appropriate.

Recently I experienced another upsetting example of improper conduct of waiting room personnel in a specialty clinic. Patients were called only by their last names without prefix "Mr" or "Mrs," as if they were in an immigration office dealing with undesirable aliens. One of my pet peeves is secretaries or clerks who, in a well-filled waiting room, tell each other their private jokes, accompanied by laughter or show their hobby project such as samples of cloth, etc. Once I entered the waiting room of a physician friend for a consultation. The secretary, being engaged in a telephone conversation, pointed to a chair and continued the dialogue with her friend for another 15 minutes during which she discussed the most trivial events of her past week.

Some years ago I had to see a specialist at frequent intervals. My appointment was generally at 4:00 PM, the last of the day. When the physician had finally worked his way through the large number of patients waiting for him, my turn came at about 6:00 PM. The physician seemed completely spent and my complaints faded into relative insignificance in comparison to his exhaustion. The primary need for both of us appeared to be to get home as quickly as possible.

Another friend told me that for several months he visited a specialty clinic run by a number of physicians. The receptionist, who seemed to be a different person each time, always directed to him the following two ques-

tions: "What is your name?" and "Is this the first time you have been here?" He finally answered the latter to himself "... and the last time!" and changed doctors.

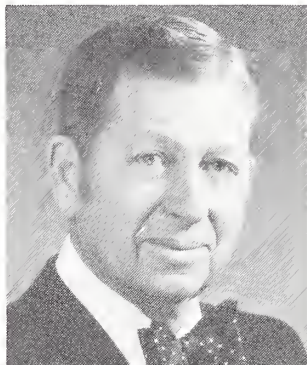
These examples suffice, but could be supplemented by many others. By contrast, I have encountered numerous receptionists and secretaries who handle patients with warmth and affection and make serious attempts to relieve them of their anxiety and tension so that they approach the physician's office in a better frame of mind than when they came in.

I wish hospital administrators and physicians could, like Calif Harun al-Rashid, in disguise and unbeknownst to their personnel, sit in their own waiting rooms and observe the behavior of their staff.

What can we do about this often quite unhappy setting, being aware that waiting patients are frequently in a state of increased anxiety and foreboding, or, at best, tense and nervous? We know that the waiting room experience will greatly affect the patient's rapport with the physician, particularly on their first visit. If they bring with them a pleasant feeling of relaxation and good humor, the battle is half won. The physician should stick to a reasonable time schedule avoiding long periods of waiting for their patients. The ambience of the room, which might include plants, paintings and comfortable chairs, should calm the patient's tension. Small children and male adults are not very compatible in a waiting room. Patients should always be addressed by their names to personalize their relationship. The receptionist and/or secretary should be made aware by example and instruction that for humanitarian and practical reasons all waiting patients should be made to feel as comfortable as possible. Hospitals and clinics should introduce on-the-job-training in this field for their staffs, bringing to their attention that in general patients are more sensitive and anxious than the people they meet in ordinary walks of life. But, first and foremost, physicians, hospital administrators, nurses, technicians, administrative staff, and, yes—even biomedical science teachers, should realize that the only reason for their professional existence is the patient. *Ernest Lachman, MD*

Negotiation Commentary

The American Medical Association recently sponsored a seminar on "Leadership and Negotiation." It was most informative, interesting, and challenging. Dr Tom Nesbitt, past-president of the AMA, gave immediate significance to the meeting. He reminded us of "the increasing accountability of the physician" in his practice. This involves all of the Health Care Industry. As a result, there is an ever-increasing need for negotiation.



In the AMA "Physicians' Guide to Negotiations" by Sy Burrows, negotiating is described. It is the practice of communicating differing ideas to achieve a satisfactory result. The AMA, "as the advocate of its members and of the profession," is promoting the development of negotiating skills within the profession and its societies. This is so they can be competitive with those who are recognized as opponents to continued and improved quality of patient-care.

Negotiation requires training, study, understanding, patience, and, above all, adequate preparation. Psychological patterns need evaluation. "Value systems analysis" was introduced to evaluate personal profiles. In the seminar, problem cases emphasized prepara-

tion and were studied, negotiated, and critiqued. Negotiating difficulties were seemingly simplistic before a problem became complex under an adversary situation. To bring a reality answer in a compulsion-free agreement by either involved party is a prime consideration. Education of the opposition may be necessary. The axion of negotiation is that if successful, neither side loses. This is described as a win/win situation. One of the negotiating parties may concede more than the other. Obviously no negotiation may be concluded successfully if either party does not have the adequate authority. Despite all efforts, sometimes a third party settlement is needed.

The AMA is increasingly involved in representing "the profession" before legislative and bureaucratic agencies. AMA negotiations have been used in CHAMPUS, Medicare, Medicaid, PSRO, HSA, and state medical societies in consultation for third party disputes. The need for continuing negotiation is evident. The application should become more significant as government further intervenes in the Health Care Industry.

A variant of the Golden Rule that works is applied to negotiation. This state's, attitudes are subject to Newton's first law.

"We receive in response to what we give."

Wm. M. Leebron, M.D.

Plasma Lipid Levels Among Rural Oklahomans: The Oklahoma Lipid Research Clinic

MARY F. BROCKWAY, PhD
ASSISTANT MEMBER
Oklahoma Medical Research Foundation

JUDITH HILL
SENIOR RESEARCH ASSISTANT
Oklahoma Medical Research Foundation

PATRICIA B. HYDER, MPH
FORMER RESEARCH ASSISTANT
Oklahoma Medical Research Foundation

ARDEN MACKENTHUN, PhD
ASSISTANT PROFESSOR
University of Oklahoma Health Sciences Center

PAUL S. ANDERSON, JR., PhD
DIRECTOR SCHOOL OF PUBLIC HEALTH
University of Oklahoma Health Sciences Center

GERALD D. HILLERMAN, MT (ASCP)
SUPERVISOR CORE LABORATORY
Oklahoma Lipid Research Clinic

Both cholesterol and triglyceride levels increase with age and are generally higher for men until age fifty. Among women sex hormone use was found to have a substantial impact on lipid levels.

ABSTRACT

Fasting plasma cholesterol and triglyceride levels were determined for 5,906 white adults living in rural Oklahoma. Differences by sex were present for both lipids, with values generally higher among men ages 25-49. Cholesterol levels for women were substantially higher after age 50. Less variation by sex for triglyceride values was observed among the older participants. Thirty-five per cent of female participants age 20-69 were taking some type of sex hormone. Sex hormone use was associated with increased values of both lipids. An increase in excess of 20% was observed in median triglyceride levels for every age group younger than 50, with the maximum difference being an increment of 58% for women age 25-29. The impact of hormone utilization was not as great for cholesterol, although the values of users exceeded those of non-users by 10-18 mg/dl for all ages between 20 and 45 years.

KEY WORDS: cholesterol; epidemiology; lipids; rural population; triglyceride.

In a prior publication in this *Journal*,¹ a general description of the Lipid Research Clinics (LRC) program and its collaborative results were given. The purpose of this paper is to describe the distribution of plasma cholesterol and triglyceride as determined by the Ok-

TABLE 1: THE OKLAHOMA LRC TOTAL SAMPLE AND PARTICIPANTS, BY AGE AND SEX

Age In Years	MALES			FEMALES			TOTAL		
	Participants			Participants			Participants		
	Sample	Number	Rate*	Sample	Number	Rate*	Sample	Number	Rate*
18-19	194	112	57.7	192	136	70.8	386	248	64.2
20-24	371	249	67.1	421	310	73.6	792	559	70.6
25-29	503	374	74.4	467	385	82.4	970	759	78.2
30-34	410	300	73.2	450	347	77.1	860	647	75.2
35-39	369	260	70.5	407	352	86.5	776	612	78.9
40-44	453	355	78.4	426	338	79.3	879	693	78.8
45-49	373	282	75.6	412	319	77.4	785	601	76.6
50-54	398	284	71.4	416	331	79.6	814	615	75.6
55-59	381	285	74.8	414	341	82.4	795	626	78.7
60-64	346	272	78.6	389	294	75.6	735	566	77.0
65-69	342	270	78.9	439	324	73.8	781	594	76.1
70+	375	275	73.3	574	395	68.8	949	670	70.6
Total	4515	3318	73.5	5007	3872	77.3	9522	7190	75.5

*Participation Rate = $\frac{\text{Number of Participants}}{\text{Number in Sample}} \times 100$

lahoma Lipid Research Clinic's (OLRC) screening in four counties.

Investigators affiliated with the Department of Biostatistics and Epidemiology of the University of Oklahoma, in cooperation with researchers in the Oklahoma Medical Research Foundation (OMRF), are primarily responsible for the OLRC Prevalence Study which includes four major phases, two of which have been completed. The first phase, referred to as Visit 1, was a simple screening for lipid values of a probability sample of the specified target population. The second phase, Visit 2, consisted of an extensive study of approximately one-fourth of those seen at Visit 1. The complexity of the Visit 2 routine required that that phase of the study be conducted in outpatient facilities of the OMRF. To facilitate patient response for Visit 2, the entire study focused on four predominantly rural counties contiguous to the Oklahoma City metropolitan area. This paper will deal specifically with the Visit 1 experience of the OLRC Prevalence Study.

STUDY SAMPLE AND METHODS

According to the 1970 census, the four counties studied had a total adult population of 73,573, of which 10,120 were selected for the study. During the time required to complete work in each county, those residents who moved out of the target area or died were removed from the sample, leaving a final sample of 9,522. The multi-stage sampling strategy for this probability sample identified household members by a census procedure and essentially selected one member per household. A description of the sampling procedure is now being prepared.

Participation rates by sex and five-year age

groups are given in Table 1. Female participation rates were higher than those for males until age sixty. Participation for females peaked at 86.5% for ages 35-39 while for males the peak of 79% occurred in the 65-69 age group. Participation was over 70% in almost every age-sex group, the exceptions being young men (18-24) and women over 70 years of age. The final over-all participation rate was 75.5%.

The sample was drawn to be representative of the age-sex composition of each county without regard to race. However, Table 2 indicates that the percent of Visit 1 nonwhite participants was virtually the same as the corresponding percent of the total population (of the four counties combined), as enumerated in the 1970 US Census.

Following sample selection in each county, a field clinic was set up for the Visit 1 screening which consisted of two procedures: (i) administering a short questionnaire, and (ii) drawing a fasting blood sample. The blood samples were returned to the laboratories of the OMRF for measurements of plasma cholesterol and triglyceride. Because of the logistics of setting up field clinics, each county was treated as a separate unit, with work being completed in one county before sampling was begun in the next.

The Oklahoma LRC Prevalence Study commenced in the spring of 1973 and Visit 1 screening was concluded in late 1975. At that time formal closure procedures established by the LRC Epidemiology Committee were initiated. Standard procedures for editing and verifying all information collected during Visit 1 were utilized to assure the quality and comparability of the data across the various Lipid Research Clinics. Upon completion of closure procedures, final analysis of the Oklahoma data was begun.

COMPARABILITY WITH PREVIOUS STUDIES

Many studies of lipid distributions have been done previously, but differ from the present investigation in several aspects.

TABLE 2
PERCENT NONWHITE, 1970 CENSUS AND VISIT 1 PARTICIPANTS—BY COUNTY

	1970 Census			Visit 1 Participants		
	M	F	T	M	F	T
McClain	3.1	3.5	3.3	3.7	4.7	4.2
Canadian	6.4	5.1	5.7	3.7	3.1	3.4
Lincoln	5.0	5.6	5.3	6.7	6.4	6.5
Pottawatomie	6.1	6.2	6.2	6.9	7.5	7.3
4 COUNTIES	5.6	5.5	5.5	5.4	5.6	5.5

1. The distribution of *serum* lipids has been more often described than those of *plasma* lipids. The results reported here will be directly comparable to forthcoming analyses of lipoprotein distributions among a subset of the same population (Visit 2). An LRC study of the comparability of serum and plasma lipid results showed that serum values averaged approximately 3% higher than corresponding plasma values.²

2. In general, studies of cholesterol have been more frequent and of larger scope than those measuring triglyceride. This is due in large part to the greater impact of recently ingested food and beverage on triglyceride levels as opposed to cholesterol.

3. There has been a paucity of data relating to women. Since the risk of coronary heart disease is much greater among middle-aged men than among women in this age group, many large scale studies have concentrated on men. Another factor contributing to the lack of data for women involves a tendency to study employee or industrial groups which were often predominantly male.³⁻⁵

4. The present study was population based, ie, it includes noninstitutionalized men and women of varying states of health, socioeconomic classes, dietary habits, and occupations. The presence of chronic illness (especially coronary heart disease) has often been an exclusion factor for lipid determination studies,⁶⁻⁸ but not in this study. This feature of the research will be analyzed upon completion of closure procedures for Visit 2.

5. The rather sizeable effects of sex hormones on female lipid values has only recently been recognized⁹ and has been taken into account in very few previous descriptions of variation in lipid levels by sex and age.

6. Mean lipid values have most often been reported as the measure of central tendency. For cholesterol this is a relatively accurate measure. However, the triglyceride distribution is skewed, with the upper range characterized by exceptionally high, outlying values for some individuals. This fact has a gross inflationary influence on mean values. For this reason, median triglyceride, as reported here, is much to be preferred.

RESULTS

Results are restricted to white participants because of reported racial differences in lipid levels,^{5, 10-12} and because the small proportion

of nonwhites in the Oklahoma sample precludes definitive analysis of this group. (Three percent were black, two percent American Indian, and one percent other.) Subjects who reported that they had fasted less than twelve hours are also excluded because of documented evidence of higher lipid values associated with recent caloric intake.¹³⁻¹⁴ Thus, this paper reports cholesterol and triglyceride measurements for 5,906 fasting white participants in the first phase of the OLRC Prevalence Study. Description of lipoprotein values will be reported upon final closure of the Visit 2 data.

As the distribution of fasting plasma lipids in population studies is continuous, there is, in fact, no natural dividing point between normal and abnormal. The empirical percentiles presented in this paper are obtained by ranking the observations from lowest to highest. The *p*th percentile is the first observation that is greater than or equal to *p* percent of the observations. The choice of the 5th and 95th percentiles for representation in the figures was dictated by the convention of considering these as the lower and upper limits of normal. The choice of these particular percentile points for defining hypo- and hyperlipidemia is an arbitrary convention. Numerous epidemiologic studies have demonstrated increasing risk of coronary heart disease with increasing levels of cholesterol well below the 95th percentiles observed in this study.

The distribution of plasma triglyceride in this sample indicates that 95th percentile values much higher than those customarily used to represent this level were observed in the Oklahoma study. For example, the observed 95th percentile value for OLRC males aged 50-54 was 374.8 mg/dl. The cut-point used in selecting subjects of this age to be asked to participate in Visit 2 because of hypertriglyceridemia was 300 mg/dl.

DISTRIBUTION OF PLASMA CHOLESTEROL BY AGE AND SEX

The age specific percentiles for cholesterol levels among fasting white men and women (Table 3) are illustrated in Figure 1. The median value for men increases with age until the age group 45-49 after which it tends to plateau at about 205 mg/dl. For women the median continues to increase through the age group 60-64 where it peaks at 229 mg/dl. Median cholesterol levels are higher for males than for females for ages 25-49 and conversely are higher for females by 10 or more mg/dl beyond

TABLE 3: PLASMA CHOLESTEROL PERCENTILE VALUES FOR FASTING WHITES, BY AGE AND SEX

Age In Years	MALES				FEMALES			
	Percentiles				Percentiles			
	N	5th	50th	95th	N	5th	50th	95th
18-19	85	114.3	150.5	197.3	115	117.5	162.0	234.0
20-24	203	124.0	164.5	208.0	252	121.2	170.0	226.4
25-29	284	131.0	177.0	239.8	306	123.6	169.0	227.0
30-34	223	136.3	188.0	252.7	279	130.0	175.0	237.1
35-39	194	139.0	196.0	257.6	302	141.1	183.0	245.9
40-44	282	152.2	200.0	256.0	277	144.0	187.5	258.2
45-49	218	150.9	208.0	271.1	276	155.8	198.0	268.8
50-54	223	148.8	203.0	277.9	284	160.2	214.0	283.0
55-59	230	149.5	207.0	277.5	295	162.8	225.0	298.5
60-64	226	152.3	206.0	271.4	258	164.0	229.0	299.0
65-69	234	147.0	207.0	274.0	287	167.4	226.0	307.0
70+	230	149.5	201.0	269.0	343	164.0	223.0	287.9
Total	2632				3274			

age 50. This pattern is generally present in the 5th and 95th percentiles as well as the 50th, except for the ages between 40 and 50 where the crossover occurs.

The distribution of mean cholesterol values (Table 4) follows the same general pattern as that of the median with a maximum difference of 7.3 mg/dl between these two measures occurring among females aged 40-44 years.

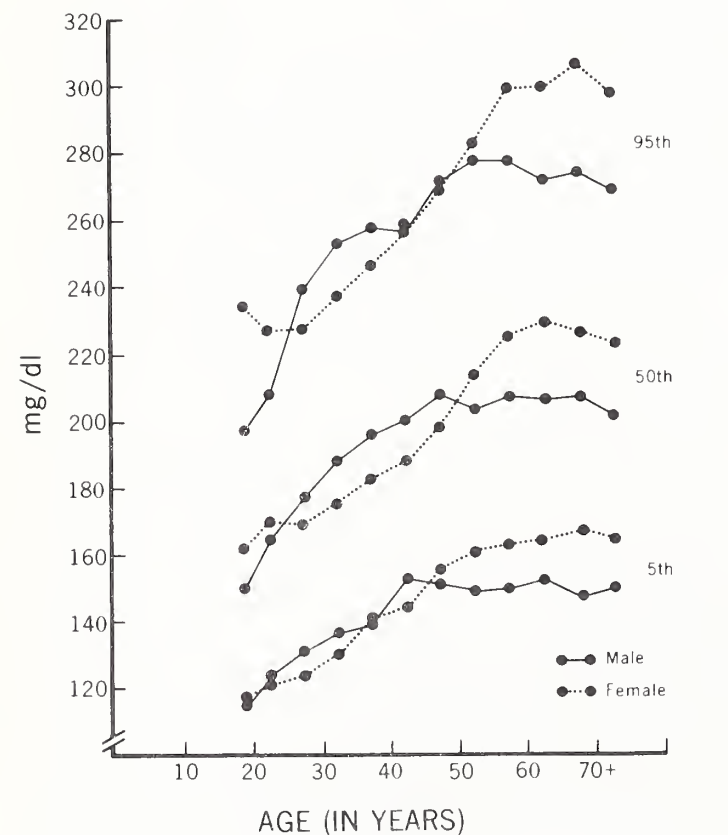


Fig 1
Plasma cholesterol percentiles for fasting white subjects by age and sex.

TABLE 4: PLASMA CHOLESTEROL MEAN VALUES FOR FASTING WHITES, BY AGE AND SEX

Age In Years	MALES				FEMALES			
	N	Mean	S.D.	Range	N	Mean	S.D.	Range
18-19	85	154.2	27.2	109-250	115	165.2	33.6	108-282
20-24	203	165.3	29.6	98-291	252	171.1	34.2	87-310
25-29	284	179.1	34.4	65-315	306	170.8	31.0	60-285
30-34	223	189.1	34.7	112-300	279	177.4	32.4	100-293
35-39	194	199.1	36.4	110-309	302	187.4	36.1	122-385
40-44	282	204.7	37.8	104-485	277	194.8	36.8	107-351
45-49	218	209.7	36.5	118-332	276	204.6	38.8	115-393
50-54	223	209.3	41.6	77-410	284	215.2	38.6	130-362
55-59	230	211.3	41.8	74-433	295	226.6	41.9	132-396
60-64	226	211.2	39.0	104-357	258	230.1	40.7	135-399
65-69	234	210.0	38.6	121-363	287	231.5	43.1	116-417
70+	230	202.9	37.9	96-353	343	224.6	47.4	123-749
Total	2632	197.8	40.3	65-485	3274	202.1	45.1	60-749

Across the twelve age categories the average excess of mean over median is 3.16 mg/dl for males and 3.15 mg/dl for females. Thus, for both sexes, the mean cholesterol appears to be as accurate a descriptor of central tendency as the median.

DISTRIBUTION OF PLASMA TRIGLYCERIDES BY AGE AND SEX

Percentile values for triglyceride are given in Table 5 and displayed in Figure 2. There is a general pattern of increasing triglyceride to age 55 in both men and women with higher

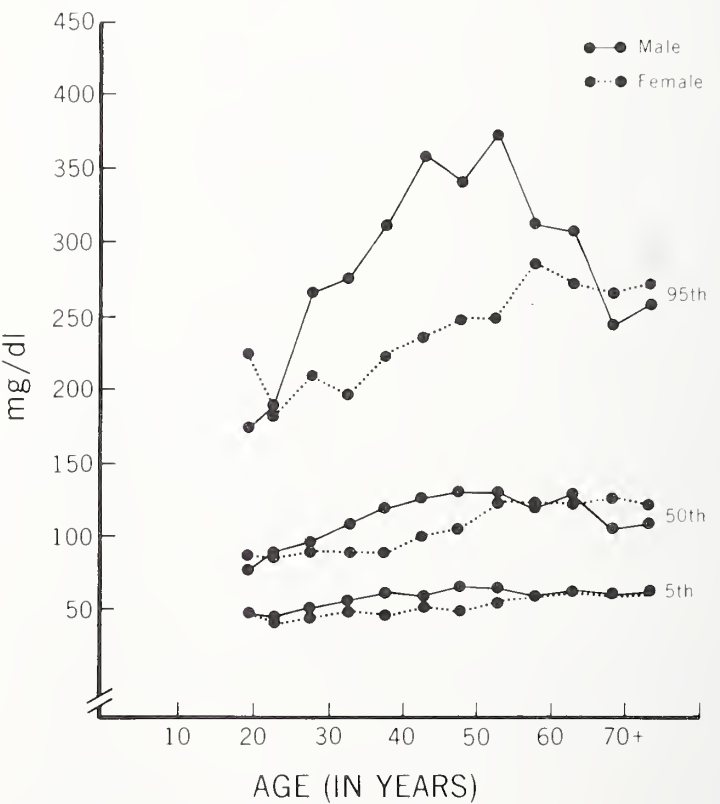


Fig 2
Plasma triglyceride percentiles for fasting white subjects by age and sex.

TABLE 5: PLASMA TRIGLYCERIDE PERCENTILES FOR FASTING WHITES, BY AGE AND SEX

Age In Years	MALES				FEMALES			
	Percentiles				Percentiles			
	N	5th	50th	95th	N	5th	50th	95th
18-19	85	47.5	75.0	174.3	115	47.3	87.0	224.5
20-24	203	44.2	87.5	188.7	252	42.6	83.0	182.0
25-29	284	50.2	96.0	266.2	306	44.3	88.0	211.4
30-34	223	56.2	107.5	275.0	279	49.0	89.0	196.1
35-39	194	61.7	120.0	310.6	302	46.1	89.0	223.6
40-44	282	59.0	127.0	358.6	277	50.9	100.0	235.3
45-49	218	66.0	131.0	340.2	276	49.0	104.0	247.0
50-54	223	65.0	132.0	374.8	284	54.8	124.0	249.0
55-59	230	59.0	119.0	313.0	295	60.0	123.0	285.8
60-64	226	63.3	128.0	308.8	258	60.9	122.0	272.4
65-69	234	59.4	116.0	243.2	287	63.0	126.5	266.0
70+	230	60.5	118.0	257.5	343	64.5	123.0	271.0
Total	2632				3274			

male values from age 20 to 55. After that age, median values for men tend to decrease slightly and for women remain constant. A pattern of male excess is apparent in all three reported percentiles, but is most striking at the 95th. The maximum difference between sexes of 125 mg/dl occurs in the 50-54 age group. The interval between the 95th and 50th is considerably greater than between the 50th and 5th percentiles, indicating the markedly skewed triglyceride distribution.

The range of triglyceride across all ages (Table 6) was from a low of 28 mg/dl to a maximum of 2,169 mg/dl in men, and from 21 mg/dl to 2,310 mg/dl in women. In comparison with the cholesterol distributions, where there was little difference (3.2 mg/dl) between the mean the median, Tables 5 and 6 show differences ranging from 12.5 mg/dl (females 20-24 and

TABLE 6: PLASMA TRIGLYCERIDE MEAN VALUES FOR FASTING WHITES, BY AGE AND SEX

Age In Years	MALES				FEMALES			
	N	Mean	S.D.	Range	N	Mean	S.D.	Range
18-19	85	87.6	39.6	36-227	115	104.9	62.9	21-441
20-24	203	102.9	58.0	32-460	252	95.5	57.7	34-573
25-29	284	120.2	74.1	28-545	306	101.6	51.2	27-298
30-34	223	135.5	91.6	37-918	279	101.5	49.7	31-330
35-39	194	154.7	113.4	51-1001	302	109.0	68.1	31-831
40-44	282	150.4	112.3	41-1188	277	115.3	69.8	29-729
45-49	218	154.6	112.0	38-1050	276	123.3	76.8	33-740
50-54	223	160.0	130.7	31-1375	284	144.9	127.2	43-1813
55-59	230	146.7	84.8	35-612	295	145.3	81.5	38-624
60-64	226	151.5	99.7	49-897	258	150.8	115.3	44-990
65-69	234	141.9	162.2	45-2169	287	149.0	145.4	35-2310
70+	230	137.0	103.2	44-1253	343	149.7	131.4	41-1859
Total	2632	139.5	107.0	28-2169	3274	125.7	96.5	21-2310

TABLE 7: MEDIAN PLASMA LIPIDS FOR FASTING WHITE FEMALES, BY AGE AND HORMONE USAGE

Age In Years	Percent Hormone Users		Cholesterol		Triglyceride	
	N	Users	Hormone Users	Non-Users	Hormone Users	Non-Users
20-24	252	41.3	180.0	162.0	98.0	70.0
25-29	306	33.3	178.0	163.5	120.0	76.0
30-34	279	28.0	182.0	172.0	116.0	80.0
35-39	302	29.1	190.0	180.0	122.0	85.0
40-44	277	36.5	197.0	185.0	113.5	91.5
45-49	276	47.8	201.0	196.0	116.0	97.0
50-54	284	45.1	215.0	211.0	138.0	114.5
55-59	295	40.7	216.0	229.0	119.0	124.0
60-64	258	27.5	226.5	229.0	110.0	123.0
65-69	287	19.9	216.5	229.5	127.5	126.0
Total	2816	34.8				

30-34) to 34.7 mg/dl (males 35-39) for triglyceride. The average excess of mean over median triglyceride is 23.8 mg/dl for males and 19.4 mg/dl for females. Because of the extreme variability and skewness toward high triglyceride values, the median is a much less misleading indicator of central tendency than the mean.

HORMONE USAGE AND PLASMA LIPID LEVELS

Numerous studies have indicated that consumption of oral contraceptives and/or estrogens tends to alter female plasma lipids. Most recently Wallace, et al,⁹ reporting on collaborative LRC data, found that mean tri-

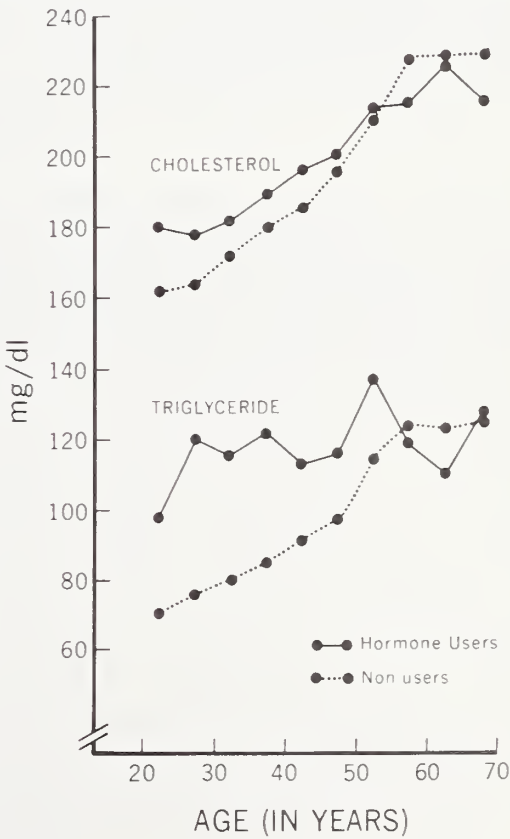


Fig 3

Median plasma lipids for fasting white females by age and hormone use.

glyceride was elevated by as much as 48% among young (ages 20-24) white sex-hormone users as compared with non-users. Cholesterol was also elevated, but to a lesser degree.

Among fasting white female participants in the Oklahoma study, 34.8% of those aged 20-69 were taking some type of sex hormone medication. Age-specific utilization rates are given in Table 7 and ranged from a low of 19.9% for 65-69 year old women to a high of 47.8% at ages 45-49. The distribution of median plasma cholesterol and triglyceride for hormone users and non-users, by age, is displayed graphically in Figure 3 and presented in Table 7. Among women aged 20-44 sex hormone use was associated with a rise in cholesterol of 10 mg/dl to 18 mg/dl. The excess for these younger women is even more marked with respect to triglyceride with the increase among users ranging from 22 mg/dl to 44 mg/dl. The increment in median triglyceride associated with sex-hormone consumption was 58% for women aged 25-29, with an increase in excess of 20% for every 5-year age group younger than 55. It may be presumed that oral contraceptives, progestogens, were the type of hormone taken by these women. Among older women, however, estrogens presumably predominate as the hormone taken. For hormone users 55 years of age and older somewhat lower median values were exhibited for both cholesterol and triglyceride.

SUMMARY

Results presented in this report focus primarily on the distributions of plasma lipid levels by age and sex within a fasting population of 5,906 white adults living in rural Oklahoma. Among the more salient findings, the

OLRC study further documents previously known rises in cholesterol and triglyceride from young adulthood through middle age, with a leveling off among the older population. Male-female differences were observed for both lipids, with values generally higher for men aged 25-49 years. Among women, whether or not oral contraceptives or estrogens are being taken has a substantial impact on lipid levels. This is greatest prior to age 50 and is particularly marked for triglycerides. □

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Oklahoma Lipid Research Clinic, Oklahoma Medical Research Foundation, 825 N. E. 13th Street, Oklahoma City, Oklahoma 73104.

Hemodynamic Monitoring With Balloon Flotation Catheters

R. RICHARD EDDE, MD

Balloon flotation catheters provide for prompt and accurate assessment of cardiovascular function.

Hemodynamic monitoring with balloon (Swan-Ganz) flotation catheters has, over the last few years, become a standard of care in many institutions. The reasons for this are: 1) the technique, although invasive, is easy to master, 2) the advent of flotation catheters makes fluoroscopy unnecessary, 3) the complications have been relatively few, and 4) the information derived has been an accurate reflection of the patient's hemodynamic pattern.

Prompt recognition and accurate assessment of circulatory changes in critically ill patients is a fundamental necessity. Although monitoring heart rate, blood pressure, and central venous pressure have been a valuable guide in the past, these parameters do not provide suffi-

cient data for accurate diagnosis and treatment. The functional ability of the right ventricle, as reflected by the central venous pressure, does not parallel the functional state of the left ventricle.^{1,2} Knowledge of left ventricular function is of critical importance in the management of the gravely ill patient.

INDICATIONS

The indications for the use of pulmonary artery balloon catheters are many and varied. The decision to implement this invasive monitoring should be on an individual basis, although a few guidelines can be established. The most common indication for placing a pulmonary artery catheter is in the patient with an unstable cardiovascular system, the cause of which could be cardiogenic, pulmonary, septic, or hypovolemic in nature. The cardiovascular system in these patients can change dramatically and rapidly.

Patients undergoing open-heart surgery often have inadequate left ventricular function after bypass, and hemodynamic monitoring is essential.

Surgical procedures of such magnitude that result in large blood loss or fluid shifts or fail-

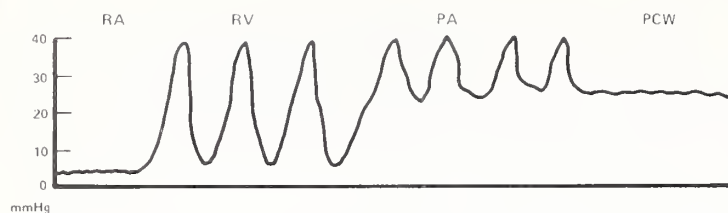


Fig 1. Pressure tracing from the tip of a flotation catheter during its passage. RA = Right Atrium, RV = Right Ventricle, PA = Pulmonary Artery, and PCW = Pulmonary Capillary Wedge position.

ing or ischemic hearts can lend themselves to accurate assessment intra- and post-operatively.

TECHNIQUE

The catheterization of the pulmonary artery can be accomplished with a balloon flotation catheter at the bedside or in the operating room without the aid of fluoroscopy. Support equipment for detection and therapy of arrhythmias and recording of data are necessary. Catheterization is performed during continuous electrocardiographic monitoring. Any easily accessible vein may be used, although the internal jugular or subclavian veins are generally used by surgeons and anesthesiologists. The catheter is advanced until its tip is in or near the right atrium. The balloon is then inflated and the catheter is advanced further. The catheter tip pressure is recorded continuously on an oscilloscope as the catheter is advanced through the right atrium into the right ventricle, pulmonary artery, and finally into a wedge position. (Fig 1) While in the wedge position, the catheter tip transmits the pressure retrograde from the left atrium. With deflation of the balloon, pulmonary arterial pressure will reappear. The catheter is then sutured in place. Since the catheter material softens with time, continuous monitoring of the pressure tracing is needed to be sure the catheter does not wedge on its own.

R. Richard Edde, MD, was graduated from the University of Oklahoma College of Medicine in 1971 where he is now assistant professor and director of cardiothoracic anesthesia. He is certified by the American Board of Anesthesiology and is a member of the American Society of Anesthesiology.

Although complications of pulmonary artery balloon catheterization are usually infrequent, the simplicity of the procedure itself sometimes leads to underestimation of the potential hazards.

BALLOON RUPTURE: Rupture of the balloon is not uncommon, especially in catheters used continuously over long periods of time. Leakage of air into the left side of the circulation can result in coronary or cerebral embolization. In those patients with right-to-left shunts, carbon dioxide should be used as the inflation medium.

PULMONARY INFARCTION: Infarction of lung segments can occur if catheters migrate peripherally to lodge in a wedge position. If the balloon is inflated for prolonged periods in a large branch of the pulmonary artery, more extensive infarction can take place. Wedge pressures should, therefore, be measured only intermittently.

ARRHYTHMIAS: Arrhythmias, especially premature ventricular contractions, ventricular tachycardia and fibrillation have been reported.³ These usually have been self-limited when manipulation of the catheter has been temporarily suspended.

PULMONARY ARTERY RUPTURE: Damage to the pulmonary artery has been documented, especially in patients with pulmonary hypertension.⁴ Once a wedge position is obtained, inflation of the balloon should be stopped to prevent this complication.

KNOTTING OF CATHETER: Knotting is a more frequent problem with small catheters than with the larger ones. To minimize the likelihood of knotting, advancement should be stopped if the right ventricle is not reached from the internal jugular or subclavian veins at 40 cm. After the catheter tip is in the right ventricle, the pulmonary artery should be reached within 15 cm.

THROMBOEMBOLISM: Any foreign body may serve as a focus for clot formation. In severely ill patients or those in whom prolonged monitoring is contemplated, transient anticoagulation may be necessary.

CLINICAL APPLICATIONS

Once a catheter is placed in the pulmonary artery, systolic, diastolic, as well as wedge pressures can be obtained. Also, using a triple-lumen catheter, cardiac output may be com-

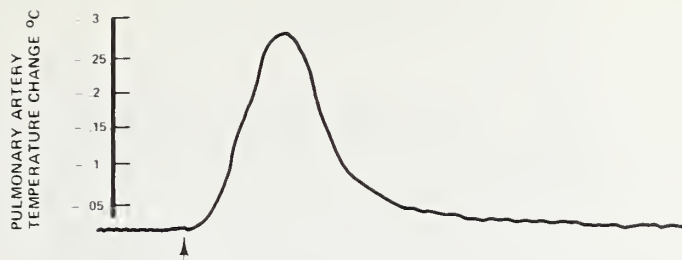


Fig 2. Typical Thermodilution curve. At the arrow, 10 ml of iced (0°C) 5 per cent dextrose in water was injected into the right atrium. The area under the Thermodilution curve is found by integration and the value is equal to cardiac output.

puted using the thermodilution technique and a small computer. Utilizing the indicator-dilution principle, negative heat (cold) is used as the indicator. If a known quantity of negative heat is introduced into the circulation, the resulting cooling curve allows computation of cardiac output. (Fig 2) From the thermodilution curve, "on-line" computation of cardiac output can be done quickly utilizing a bedside computer.

Normal cardiopulmonary hemodynamics are characterized by a cardiac index (cardiac output/body surface area) of 2.5-4.3 l/min/M² and a mean pulmonary capillary wedge pressure (PCWP) between 6 and 12 torr. Abnormal intracardiac pressures and their causes are shown in the following table. (Table 1) A recent study has shown that clinical hypoperfusion occurs at a cardiac index of 2.2 l/min/M² or less.^{5, 6} Furthermore, the same study found the single value for pulmonary wedge pressure and cardiac index that most precisely separates patients with and without pulmonary congestion and peripheral hypoperfusion are 18 torr and 2.2 l/min/M² respectively. Using these data as a guideline, one can most accurately assess the

Catheter Position	Normal Pressures (mmHg)	Reasons for Increased Pressures
RA	0-8	RV failure, P.E., COPD, tricuspid valve abnormalities, pericardial tamponade
PA	15-30 5-12	* Resistance from P.E. or COPD * flow from VSD
PCW	5-12	LV failure, mitral valve disease, tamponade, ↓ LV compliance

Table 1. Normal and Abnormal Pressures within the heart. RA = Right Atrium, PA = Pulmonary Artery, PCW = Pulmonary Capillary Wedge, P.E. = Pulmonary Embolus, COPD = Chronic Obstructive Pulmonary Disease, VSD = Ventricular Septal Defect, LV = Left Ventricle.

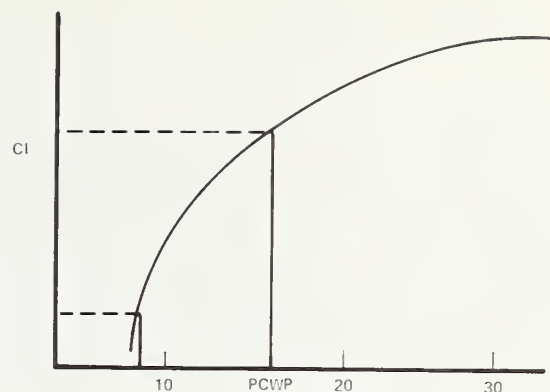


Fig 3. Relationship between cardiac index (C.I.) and pulmonary capillary wedge pressure (PCWP). Raising PCWP by volume expansion from 5 to 15 mostly results in a marked increase in cardiac index. Any further rise in PCWP will result in only a small change in C.I.

ability of the heart to function as a pump. Therapeutic interventions can as easily be accurately evaluated.

Peripheral hypoperfusion (C.I. < 2.2 l/min/M²) may or may not be associated with pulmonary congestion (PCWP > 18 torr). In those patients with a low cardiac output complicated by pulmonary congestion, the logical goal of therapy is the simultaneous improvement of both cardiac index and pulmonary wedge pressure. Reducing afterload via peripheral vasodilators, at present, seems to be the most appropriate form of therapy. Afterload reduction results in an increased cardiac index due to decreased resistance to ejection and a marked reduction in PCWP.^{7, 8} Thus, pulmonary congestion is lessened and peripheral perfusion improves.

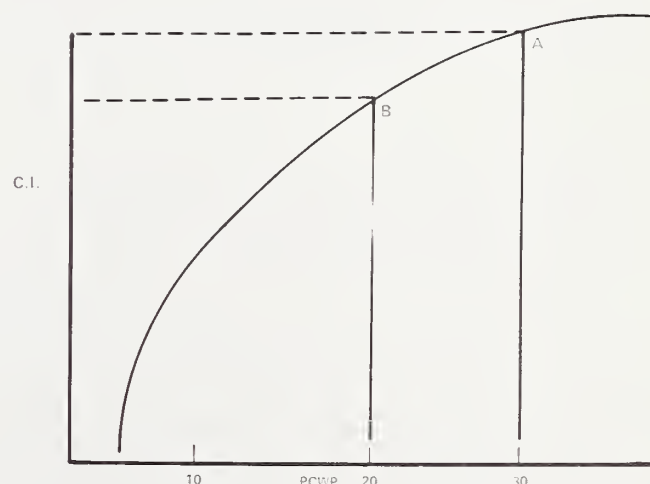


Fig 4. Lowering PCWP from a high level (A) to a more reasonable level (B) does not result in a significant fall in cardiac index, although pulmonary congestion will be relieved.

In patients with peripheral hypoperfusion without pulmonary congestion, the goal is to improve cardiac index to an adequate level at the least expense to the heart in terms of myocardial oxygen consumption. According to the Starling mechanism, volume expansion may increase cardiac output, but this response is limited above a PCWP of 18 torr.⁹ (Fig 3)

Pulmonary congestion may occur alone without peripheral hypoperfusion and may be an early indicator of volume overload or congestive heart failure. The goal is to reduce PCWP below a level causing congestion but not so low as to reduce cardiac output. PCWP needs to be reduced in these patients to a level of 15 - 18 mm Hg. Diuretics appear to offer the most advantageous mechanism for the treatment of this class of patients. (Fig 4) Other hemodynamic parameters (heart rate, blood pressure, cardiac index) remain unchanged.

SUMMARY

This paper has attempted to summarize briefly hemodynamic monitoring with balloon flotation catheters, which can be accomplished easily with few complications. The cardiopulmonary system can be accurately assessed and early corrective intervention begun. The approach to a critically ill patient needs to be based on sound, accurate hemodynamic data, and the balloon flotation catheter appears particularly useful in providing this information. □

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V. A. Hospital, 921 NE 13th, Oklahoma City, Oklahoma 73104.

Tenuate® (diethylpropion hydrochloride NF)

Tenuate Dospan® (diethylpropion hydrochloride NF) controlled-release

AVAILABLE ONLY ON PRESCRIPTION

Brief Summary

INDICATION: Tenuate and Tenuate Dospan are indicated in the management of exogenous obesity as a short-term adjunct (a few weeks) in a regimen of weight reduction based on caloric restriction. The limited usefulness of agents of this class should be measured against possible risk factors inherent in their use such as those described below.

CONTRAINDICATIONS: Advanced arteriosclerosis, hyperthyroidism, known hypersensitivity, or idiosyncrasy to the sympathomimetic amines, glaucoma. Agitated states. Patients with a history of drug abuse. During or within 14 days following the administration of monoamine oxidase inhibitors, (hypertensive crises may result).

WARNINGS: If tolerance develops, the recommended dose should not be exceeded in an attempt to increase the effect; rather, the drug should be discontinued. Tenuate may impair the ability of the patient to engage in potentially hazardous activities such as operating machinery or driving a motor vehicle; the patient should therefore be cautioned accordingly. **Drug Dependence:** Tenuate has some chemical and pharmacologic similarities to the amphetamines and other related stimulant drugs that have been extensively abused. There have been reports of subjects becoming psychologically dependent on diethylpropion. The possibility of abuse should be kept in mind when evaluating the desirability of including a drug as part of a weight reduction program. Abuse of amphetamines and related drugs may be associated with varying degrees of psychologic dependence and social dysfunction which, in the case of certain drugs, may be severe. There are reports of patients who have increased the dosage to many times that recommended. Abrupt cessation following prolonged high dosage administration results in extreme fatigue and mental depression; changes are also noted on the sleep EEG. Manifestations of chronic intoxication with anorectic drugs include severe dermatoses, marked insomnia, irritability, hyperactivity, and personality changes. The most severe manifestation of chronic intoxications is psychosis, often clinically indistinguishable from schizophrenia. **Use in Pregnancy:** Although rat and human reproductive studies have not indicated adverse effects, the use of Tenuate by women who are pregnant or may become pregnant requires that the potential benefits be weighed against the potential risks. **Use in Children:** Tenuate is not recommended for use in children under 12 years of age.

PRECAUTIONS: Caution is to be exercised in prescribing Tenuate for patients with hypertension or with symptomatic cardiovascular disease, including arrhythmias. Tenuate should not be administered to patients with severe hypertension. Insulin requirements in diabetes mellitus may be altered in association with the use of Tenuate and the concomitant dietary regimen. Tenuate may decrease the hypotensive effect of guanethidine. The least amount feasible should be prescribed or dispensed at one time in order to minimize the possibility of overdosage. Reports suggest that Tenuate may increase convulsions in some epileptics. Therefore, epileptics receiving Tenuate should be carefully monitored. Titration of dose or discontinuance of Tenuate may be necessary.

ADVERSE REACTIONS: *Cardiovascular:* Palpitation, tachycardia, elevation of blood pressure, precordial pain, arrhythmia. One published report described T-wave changes in the ECG of a healthy young male after ingestion of diethylpropion hydrochloride. *Central Nervous System:* Overstimulation, nervousness, restlessness, dizziness, jitteriness, insomnia, anxiety, euphoria, depression, dysphoria, tremor, dyskinesia, mydriasis, drowsiness, malaise, headache; rarely psychotic episodes at recommended doses. In a few epileptics an increase in convulsive episodes has been reported. *Gastrointestinal:* Dryness of the mouth, unpleasant taste, nausea, vomiting, abdominal discomfort, diarrhea, constipation, other gastrointestinal disturbances. *Allergic:* Urticaria, rash, ecchymosis, erythema. *Endocrine:* Impotence, changes in libido, gynecomastia, menstrual upset. *Hematopoietic System:* Bone marrow depression, agranulocytosis, leukopenia. *Miscellaneous:* A variety of miscellaneous adverse reactions has been reported by physicians. These include complaints such as dyspnea, hair loss, muscle pain, dysuria, increased sweating, and polyuria.

DOSAGE AND ADMINISTRATION: Tenuate (diethylpropion hydrochloride): One 25 mg. tablet three times daily, one hour before meals, and in mid-evening if desired to overcome night hunger. Tenuate Dospan (diethylpropion hydrochloride) controlled-release: One 75 mg. tablet daily, swallowed whole, in mid-morning. Tenuate is not recommended for use in children under 12 years of age.

OVERDOSAGE: Manifestations of acute overdosage include restlessness, tremor, hyperreflexia, rapid respiration, confusion, assaultiveness, hallucinations, panic states. Fatigue and depression usually follow the central stimulation. Cardiovascular effects include arrhythmias, hypertension or hypotension and circulatory collapse. Gastrointestinal symptoms include nausea, vomiting, diarrhea, and abdominal cramps. Overdose of pharmacologically similar compounds has resulted in fatal poisoning, usually terminating in convulsions and coma. Management of acute Tenuate intoxication is largely symptomatic and includes lavage and sedation with a barbiturate. Experience with hemodialysis or peritoneal dialysis is inadequate to permit recommendation in this regard. Intravenous phentolamine (Regitine®) has been suggested on pharmacologic grounds for possible acute, severe hypertension, if this complicates Tenuate overdosage.

Product Information as of April, 1976

MERRELL-NATIONAL LABORATORIES Inc.
Cayey, Puerto Rico 00633

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MERRELL-NATIONAL LABORATORIES
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9-4672 (Y957A)

Withdrawal Symptoms From Combined Alcohol And Minor Tranquilizer Intake

ROBERT FRANKEN, MD
F. E. SEALE, MD

In addition to the hazards of simultaneous use, concurrent withdrawal from alcohol and certain tranquilizers presents a dangerous and complex problem to the poorly-informed and unsuspecting clinician.

The alcoholic patient who is also taking one or more of the minor tranquilizers has been seen with increasing frequency at this hospital since 1959.* With the introduction of diazepam in 1963 the problem has become one of major concern and has necessitated a new approach to diagnosis and management.

The particular vulnerability of the alcoholic to addiction to other mind-altering chemicals is well documented. What has not been reported is the existence of a well-defined syndrome of withdrawal in these cross-addicted patients, which differs materially from classical alcohol withdrawal and which requires specific recognition and special treatment.

Materials and Methods: In this study 100

cases were considered, using both in-patients and records from previous patients for data. Objective and subjective data were compiled by direct question-and-answer sessions with staff physicians and counselors and by continued daily observation of the patients. Care was taken not to ask leading questions. Subjective symptoms were recorded exactly as described by the patient whenever possible. In the following chart (Fig I) the subjective symptoms described by the patients are plotted against the date of onset and duration of these symptoms. The word "dysphoria" is used to indicate a general sense of disquietude; restlessness or malaise—often expressed by the patient as a feeling of inner explosiveness. For another symptom commonly described—the feeling of wanting to run away—we have coined the term "Gauguin's Syndrome."

Fig II is a curve in which the intensity of the symptom complex is plotted against its duration. The curve is not mathematically derived from the data but is based, rather, on patient descriptions of the way they felt at the time of interview.

In Fig III objective symptoms noted by members of the staff are plotted against their onset and duration. "A" indicates alcohol withdrawal; "T" indicates tranquilizer withdrawal.

Fig IV is a curve derived from Fig III. It, like Fig II, is based on observation rather than mathematical projection.

Admitting the palpable margin of error in

Starlite Village Hospital, Center Point, Texas

FIG 1
Subjective symptoms: A—alcohol withdrawal
T—tranquilizer withdrawal

	DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
Dysphoria											T	T	T	T	T	T	T	T	T										
Weakness		A	A	A	A									T	T	T	T	T	T										
Anorexia		A	A	A	A					T	T	T	T	T															
Nausea		A	A										T	T	T														
Itching													T	T	T														
Gauguin's S.													T	T	T	T	T	T	T	T									
Tremulous		A	A	A	A	A								T	T	T	T												
Depression		A	A	A	A								T	T	T	T	T	T											
Paranoia													T	T	T	T													
Resentment		A	A	A	A	A																							
Vertigo			A	A																									
Panic														T	T	T	T	T	T	T									
Impending Doom														T	T	T	T	T	T	T									
Remorse		A	A	A	A	A																							
Guilt		A	A	A											T	T	T	T	T	T	T								
Hopelessness													T	T	T	T	T	T	T										
Helplessness		A	A	A									T	T	T	T													
Insomnia		A	A	A	A								T	T	T	T	T	T	T	T									
Fatigue															T	T	T	T	T										
Delusions		A	A	A											T	T	T	T	T	T	T	T							
Hallucinations		A	A																										
Agitation		A	A	A	A											T	T	T	T	T	T	T							

such interpretative derivation of the data, several facts become apparent:

1. In the cross-addicted patient there are two separate and distinctive withdrawal patterns. That from alcohol follows the familiar course of alcohol withdrawal. It is seen at its peak usually on the day of admission, subsides rapidly, and is over by the third or fourth day. Certain subjective symptoms, such as palmar erythema in the liver-damaged patient, of course, persist for many days but the over-all picture of the helpless drunk is soon dissipated.

Robert Franken, MD, was graduated from Ohio State University College of Medicine in 1942. He was in San Angelo, Texas for many years before establishing his practice in Center Point, Texas. His work is in the treatment of alcoholism and drug abuse.

Francis E. Seale, MD, was graduated from Southwestern Medical College of Dallas in 1944. He is presently devoting his practice to the treatment of alcoholism and other drug addictions in Center Point, Texas.

FIG II
Objective curve

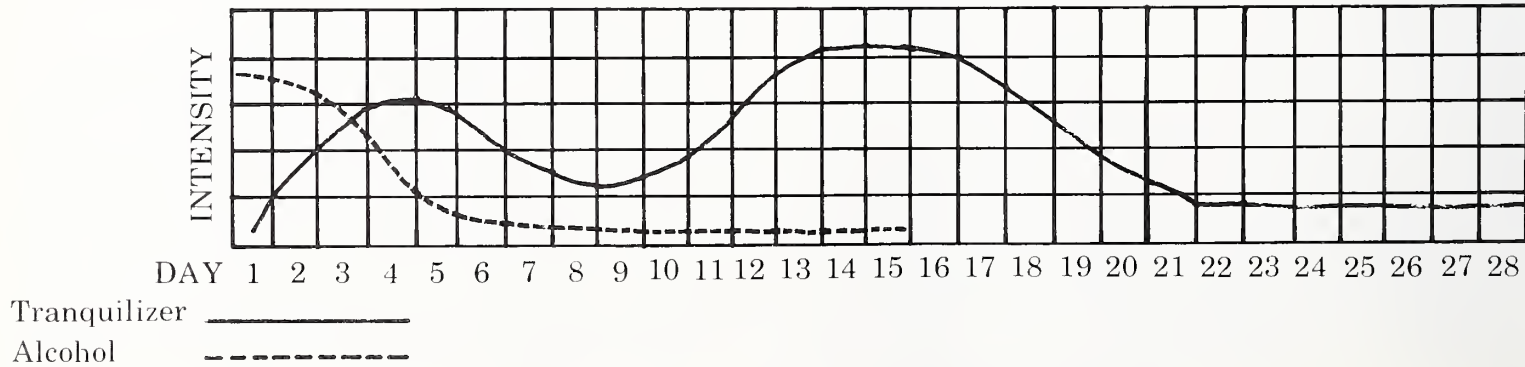


FIG III
Objective symptoms of withdrawal;

DAY	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Tremor	A	A	A	A	A	A					T	T	T	T	T	T							
Gait difficulties	A	A	A	A	A						T	T	T	T	T	T							
Retching		A	A																				
Sweating			A	A	A																		
Dyslalia	A	A	A	A							T	T	T	T									
Tearing	A	A																					
Erythema	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
Edema	A	A	A	A	A	A	A	A	A	A	A												
Pallor	A	A	A	A	A																		
Incoordination	A	A	A	A	A	A						T	T	T	T	T							
Hoarseness	A	A	A	A	A	A	A																
Nystagmus	A	A	A																				
Reduced blinking	A	A	A																				
Dyscriptia	A	A	A	A																			

2. The symptoms of withdrawal from the tranquilizers, however, do not appear until later, usually about the sixth or seventh day. In contrast to the alcohol withdrawal symptoms, these appear to escalate for several days, maintain a level for about a week and then slowly subside. It is during this period that the patient again experiences many of the early symptoms of alcohol withdrawal, with the addition of a number of new and distressing sensations and behavioral variations. Hallucinations following withdrawal from diazepam as described by *Floyd and Murphy*¹ were observed in 16 patients in our group. *Dyskin and Chan*² report delirium, marked confusion and disorientation as to time and place beginning on the eighth day after withdrawal from diazepam. This is in substantial agreement with our findings except that, on the average, these symptoms appeared somewhat later — on the 11th or 12th day. *Rifkin, et al*³ describe two grand mal convulsions in a patient five days after abrupt discontinuance of diazepam. In our series we have seen this only twice, possibly because we withdraw the drug gradually.

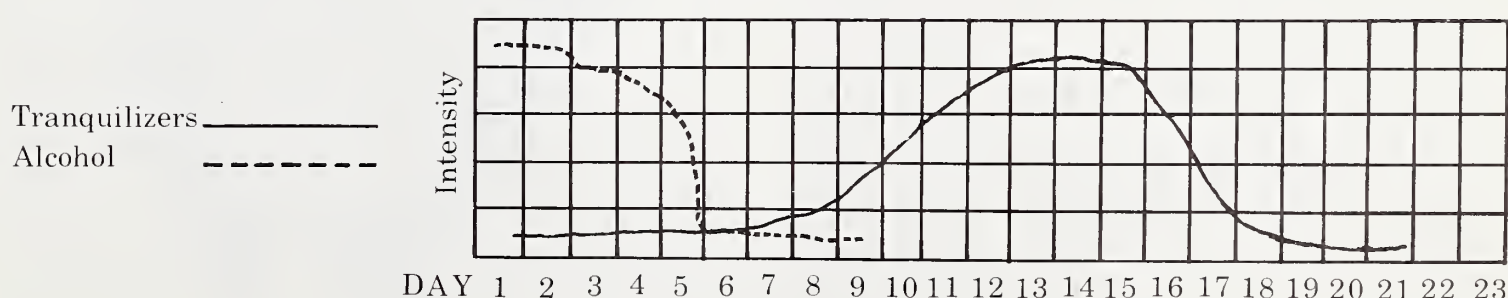
In both these cases intravenous administration of diazepam was effective in controlling the seizures. We have had no deaths following withdrawal but *Relkin*, as quoted by *Zisook*,⁴ reported the case of a 20-year-old man with basal ganglion disease who died three days after diazepam was discontinued.

Suicidal ideation has not been commonly encountered in our patients during the withdrawal period. One female spoke incessantly of killing herself and had previously taken 100 Tuinal capsules in an unsuccessful attempt to do so. As her other withdrawal symptoms subsided her talk of suicide gradually decreased and finally stopped altogether.

CONCLUSIONS

1. Cross-addiction to alcohol and the minor tranquilizers is a rapidly increasing phenomenon.
2. There are two separate and distinct patterns in the withdrawal of the cross-addicted patient; first that from alcohol and, second, an escalating picture of mental and physical dys-

FIG IV
Objective curve



AVAILABLE ONLY ON PRESCRIPTION

Brief Summary

INDICATIONS: For the prevention and treatment of nocturnal recumbency leg muscle cramps, including those associated with arthritis, diabetes, varicose veins, thrombophlebitis, arteriosclerosis, and static foot deformities.

CONTRAINDICATIONS: Because of the quinine content, Quinamm is contraindicated in women of childbearing potential, in pregnancy, in patients with known quinine sensitivity, and in patients with glucose-6-phosphate dehydrogenase deficiency. Hemolysis (with the potential for hemolytic anemia) has been associated with a G-6-PD deficiency in patients taking quinine.

PRECAUTIONS: Thrombocytopenic purpura may follow the administration of quinine in highly sensitive patients. Recovery will follow withdrawal of the medication. Cinchona alkaloids, including quinine, have the potential to depress the hepatic enzyme system that synthesizes the vitamin K-dependent factors. The resulting hypoprothrombinemic effect may enhance the action of warfarin and other oral anticoagulants.

ADVERSE REACTIONS: Aminophylline may produce intestinal cramps in some instances, and quinine may produce symptoms of cinchonism, such as tinnitus, dizziness, and gastrointestinal disturbance. If ringing in the ears, deafness, skin rash, or visual disturbances occur, the drug should be discontinued.

DOSAGE AND ADMINISTRATION:

1 tablet upon retiring. When necessary, 1 additional tablet may be taken following the evening meal.

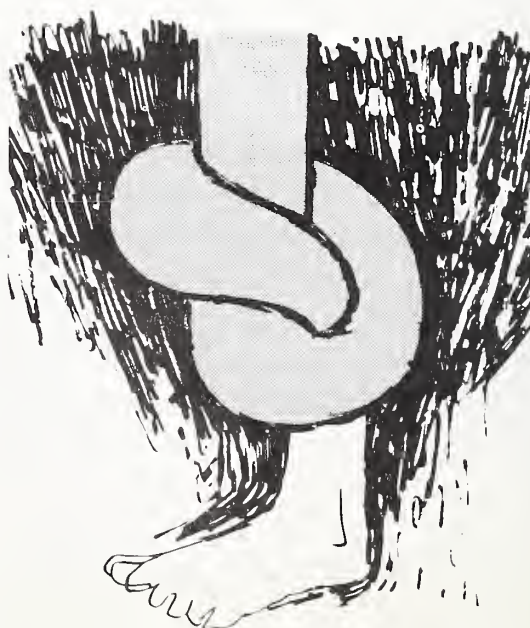
Product Information as of September, 1977
U.S. Patent 2,985,558

Merrell

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Withdrawal / FRANKEN, SEALE

function which begins on about the sixth or seventh day, progresses rapidly for several days and lasts much longer, subsiding slowly until about the 21st day.

3. No suggestions are made as to the management of this syndrome, if such it is. The treatment of each patient has to be individualized according to the physician's judgment and treatment will vary in every case.

Ryan,⁵ in 1968, reported on two cases of actual suicide shortly after abrupt withdrawal of diazepam. Barry and Weintraub⁶ describe the use of pentobarbital (Nembutal) in decreasing doses in the management of withdrawal from diazepam. This method has not been successful in our hands. Dependence upon barbiturates occurs rapidly in the addictive personality and substitution of one problem for another has not been an effective approach. The method in use at this hospital has been to give diazepam in gradually decreasing doses over a period of two weeks, at which time all drug therapy is discontinued. This method has been effective in the management withdrawal from the entire spectrum of mind-altering drugs — including hard narcotics and alcohol.

It is recommended that physicians treating alcoholism and related problems have a high index of suspicion toward cross-addiction and to suggest to their patients that a second withdrawal pattern might appear approximately a week after the "hangover" from alcohol is gone. It is further noted that the most severe and dangerous of features of the withdrawal pattern occur when diazepam and related drugs are discontinued abruptly. Gradual withdrawal of the drug or drugs with substitution of decreasing dosages of diazepam has been the most effective method of management in our hands. It has been our experience that complete abstinence from all mind-altering drugs and from alcohol is essential in the long-term cure of the cross-addicted patient. □

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Robert Franken, MD, P.O. Box 317, Center Point, Texas 78010.

Summary of 1978-79 Injury Registry for Oklahoma Secondary Schools

WILLIAM A. GRANA, MD

During the 1978-79 secondary school year there were 79 high schools which participated in an attempt at a comprehensive appraisal of sports injury. The coaches and physicians who participated and contributed their time and expertise freely deserve any credit for the validity and value of this study. The following is a summary of a portion of the raw data as well as some specifics for those sports which incurred the greatest proportion of the injuries.

An injury study begins with a definition of *injury*. In our study any event that altered the participant's ability to participate in a game or practice in the usual manner of other participants was considered an injury. We did attempt to include every medical or surgical problem requiring a physician's care in order to be as comprehensive as possible. However, a visit to the coach or trainer for evaluation of a problem which did not interfere with the

individual's ability to play as usual did not constitute an injury. In addition, *recurrent injury* was defined as the occurrence of the same problem within fourteen days after the first episode. These injuries were recorded separately. A *major injury* was one in which play was altered for seven days or more, or in which participation in a game was lost. A *minor injury* was one in which less than seven days' time was lost. Some may argue with our definition of injury, but it was chosen because the ability to function at the usual level of performance is the most important factor to a coach, and return to the usual level of function is the goal of every physician. For individual sports our injury rates may vary from other studies which have been reported, but our primary interest is to provide useful information about high school sports in our state for the coaches and physicians.

The schools which participated in this study were selected independently by the Department of Biostatistics and Epidemiology at the Oklahoma University Health Sciences Center according to the general makeup of all the schools in the state. The division by classification was as follows:

Injury Registry / GRANA

		Inj.	Rec. Inj.	Total	Total Part.	Inj. Rate by Class
4A	n 11	181	7	188	4687	.04
3A	n 16	231	8	239	4918	.05
2A	n 25	325	19	344	4497	.08
A	n 10	138	16	154	1284	.12
B	n 17	143	7	150	1825	.08
Total	79	1018	57	1075	17,211	

An *injury rate* is defined as the number of injuries divided by the total participants exposed for the sports involved. In our registry the total number of participants was determined by adding the total number of participants for each sport. In this study there were 17,211 total participants. There were 12,436 boys and 4,775 girls. The average age was 16.4 years with a range from 14 to 18 years. The overall injury rate was .063 which dropped to .059 without the recurrent injuries. Therefore, during the 1978-79 school year we could expect about six injuries for every 100 participants in the 79 schools that participated in this study. Of the 1018 injuries there were 604 major and 414 minor injuries. Eighty-two of the major injuries required surgery and 212 participants were lost for the remainder of the season. The surgical procedures were classified as follows:

- 30 Meniscal tears
- 25 Ligament rupture
- 7 Fractures with open reduction
- 7 Combined meniscal and ligament injury
- 5 Dislocations requiring surgery
- 8 Other and unknowns
- 82 Total

The loss of the remainder of a season by sport occurred as follows:

Football	138
Basketball	38
Wrestling	17
Baseball	6
Track	5
Swimming	4
Volleyball	2
Soccer	1
Softball	1
Total	212

The total of 1075 injuries are classified by *type* as follows:

	INJ.	REC. INJ.
Sprain	387	21
Fracture	157	5
Strain	143	6
Contusion	130	3
Dislocation	48	4
Meniscal	46	4
Laceration	21	—

Concussion	19	3
Heat related	17	6
Joint inflammation	15	—
Nerve pinch	12	2
Visceral contusion	4	—
Death (cardiac arrest)	1	—
Infection (blister & abrasions)	5	—
Other	13	3
Total	1018	57

The total of 1075 injuries are classified by *anatomic area* as follows:

Knee	236	Neck	35
Ankle	226	Head	22
Shoulder	112	Chest	21
Hand	75	Hip	18
Low back	60	Groin	16
Arm	54	Visceral & Abdomen	9
Thigh	54	Genital	2
Foot	48	Coccyx	1
Calf	40	Not applicable	9
Face	37	TOTAL	1075

In this group of 79 schools there was a total of sixteen sports for which injury data were collected. Four of the sports are not approved by the secondary school activities association. Four sports had no injury. To summarize here are the total number of injuries, the number of major injuries, and the injury rate for each sport.

FOOTBALL

Class	of Schools	of injuries	of participants	injury rate
4A	11	113	1151	0.098
3A	16	157	1053	0.149
2A	24	202	837	0.241
A	9	75	349	0.215
B	10	63	413	0.153
*8M	7	26	154	0.169
TOTAL	77	636 (maj. 376)	3957	0.161

*8M = 8 Man Football

BASKETBALL

Class	of schools	of injuries	of participants	injury rate
4A	11	36	761	0.047
3A	16	35	737	0.047
2A	25	65	934	0.069
A	10	38	271	0.140
B	17	36	540	0.067
TOTAL	79	210 (maj. 112)	3243	0.065

A 1968 graduate of Harvard Medical School, William A. Grana, MD, has been certified by the American Board of Orthopaedic Surgery. His specialty is limited to the Division of Sports Medicine. He is associate professor of the Department of Orthopaedic Surgery and Rehabilitation and associate director of the Division of Sports Medicine. He is a member of the American Orthopaedic Society for Sports Medicine, the International Arthroscopy Association and the American Fracture Association.

WRESTLING				
Class	# of schools	# of injuries	# of participants	injury rate
4A	13	8	375	0.028
3A	16	20	445	0.045
2A	24	29	476	0.061
A	7	9	114	0.079
B	4	3	60	0.050
TOTAL	64	69 (maj. 48)	1470	0.047

SWIMMING				
Class	# of schools	# of injuries	# of participants	injury rate
4A	11	9	241	0.032
3A	5	0	157	0.000
TOTAL	16	9 (all maj.)	398	0.021

GYMNASTICS				
Class	# of schools	# of injuries	# of participants	injury rate
4A	2	1	31	0.032
3A	1	0	17	0.000
TOTAL	3	1	48	0.021

CROSS COUNTRY				
Class	# of schools	# of injuries	# of participants	injury rate
4A	11	2	265	0.075
3A	10	7	146	0.048
2A	4	0	57	0.000
A	1	0	18	0.000
Total	26	9 (maj. 7)	486	0.018

BASEBALL				
Class	# of schools	# of injuries	# of participants	injury rate
4A	12	8	531	0.015
3A	17	4	602	0.007
2A	24	10	503	0.020
A	8	7	157	0.045
B	12	0	176	0.000
TOTAL	73	29 (maj. 19)	1969	0.015

TRACK				
Class	# of schools	# of injuries	# of participants	injury rate
4A	11	6	810	0.007
3A	16	8	867	0.009
2A	21	17	665	0.026
A	9	2	213	0.009
B	13	5	268	0.019
TOTAL	70	38 (maj. 23)	2823	0.014

SOFTBALL				
Class	# of schools	# of injuries	# of participants	injury rate
4A	7	1	151	0.007
3A	11	2	280	0.007
2A	8	2	135	0.015
A	3	2	73	0.027
B	4	2	76	0.026
TOTAL	33	9 (maj. 5)	715	0.013

SOCCER				
Class	# of schools	# of injuries	# of participants	injury rate
2A	3	2	168	0.012

VOLLEYBALL				
Class	# of schools	# of injuries	# of participants	injury rate
4A	3	1	60	0.017
3A	4	0	88	0.000
2A	7	2	129	0.016
A	2	0	33	0.000
B	10	0	138	0.000
TOTAL	26	3 (all maj.)	448	0.007

TENNIS				
Class	# of schools	# of injuries	# of participants	injury rate
4A	12	1	300	0.003
3A	16	2	326	0.006
2A	10	0	234	0.000
A	2	0	27	0.000
TOTAL	40	3 (all maj.)	887	0.003

GOLF				
Class	# of schools	# of injuries	# of participants	injury rate
4A	13	0	151	0.000
3A	13	0	200	0.000
2A	10	0	137	0.000
A	2	0	29	0.000
TOTAL	38	0	517	0.000

FIELD HOCKEY				
Class	# of schools	# of injuries	# of participants	injury rate
2A	1	0	30	0.000

ARCHERY				
Class	# of schools	# of injuries	# of participants	injury rate
2A	1	0	19	0.000

KARATE				
Class	# of schools	# of injuries	# of participants	injury rate
2A	1	0	6	0.000

Ranking sports by injury rate from greatest to least the results are as follows:

Sport	# of Injuries	# of Participants	Injury Rate
Football	636	3957	0.161
Basketball	210	3243	0.065
Wrestling	69	1470	0.047
Swimming	9	398	0.021
Gymnastics	1	48	0.021
Cross Country	9	486	0.018
Baseball	29	1969	0.015
Softball	9	715	0.013
Track	38	2823	0.014
Soccer	2	168	0.012
Volleyball	3	448	0.007
Tennis	3	887	0.003

The majority of the injuries tended to occur in games rather than practice and in the first

Injury Registry / GRANA

half of the season rather than the second half. For example:

	Total	Game	Practice	Unknown	Inj. 1st 1/2 Season
Football	636	396	231	9	399
Basketball	210	145	62	3	107
Wrestling	69	42	25	2	40

This summary barely presents the raw data available from the information collected. We would point out a few facts which we did not expect and which represent some useful information.

Football accounted for 59% of the injuries in this study as well as most of the serious problems. Even considering the large number of participants we can expect 16 injuries for every 100 participants and over one-half result in a player being disabled seven or more days. Of the 212 players out for the season 138 were from football and six of the eight players disqualified from their sport were in football. Finally, of the 32 neck injuries 26 were in football. Three of these injuries were fractures which in this group of 79 schools did not result in quadriplegia. However, we are aware of one football-related cervical spine fracture which

did result in complete functional loss below the shoulders. The risk of injury is greatest during game competition not during practices, and since the injury rate goes up in the smaller schools with fewer players, it would appear that this greater exposure in games leads to more injuries. Emphasis must be placed on adequate control of the contests by officials and coaches to prevent these injuries. It would seem reasonable to start with the current football season since the greatest number of injuries will occur during this time.

We would hope that each of you will take the time to read this information, analyze it, and then take the time to send us your questions and criticisms. We would like to provide you with useful information but this will be accomplished only if we receive your responses. Thanks to all the physicians and coaches who helped make this registry work.

Acknowledgement

Sandra L. Shannon is Orthopaedic Registry Technician and is responsible for all the data collection for this article. □

University of Oklahoma Health Sciences Center,
P.O. Box 26901, Oklahoma City, Oklahoma 73190.

ANNOUNCING
ANNUAL
JOURNALISM CONTEST

The Journal of the Oklahoma State Medical Association is offering an annual prize for the best manuscript or editorial submitted for publication to *The Journal* by a University of Oklahoma College of Medicine student.

Winner of this competition will receive a \$100.00 cash award and a plaque.

Deadline for submission of all entries is February 1, 1980. Manuscripts should be typewritten, double spaced and submitted in original and one copy.

Further information may be obtained by writing *The Journal of the Oklahoma State Medical Association*, 601 N.W. Expressway, Oklahoma City, Oklahoma 73118 or calling 843-9571.

Challenge To Oklahoma Physicians

Hundreds of Indo-Chinese refugees will be coming to Oklahoma in the next year. The refugees may have specific health care needs which are different from those of most Americans. Many practicing physicians will be called upon to attend refugee persons; it will be of use to recall that:

- 1. One in every 1,000 refugees may be expected to have active *tuberculosis*; all should have a tuberculin skin test applied, and all reactions greater than 10mm should be treated as a positive (regardless of BCG status).
- 2. Many childhood and some adult immunizations will be required.
- 3. *Gastrointestinal* disorders are common. *Febrile diarrheas* should prompt consideration of the usual bacterial enteritides, as well as *amebiasis*. *Parasitic infection* is common. *Lactose intolerance* is highly prevalent in Oriental persons.
- 4. In the differential of all febrile illnesses, *MALARIA* must be considered; it should be recalled that *chloroquine-resistant P. falciparum* exists in Southeast Asia.
- 5. *Skin affections* are common; in addition to *impetigo* and *scabies*, occasional instances of *Hansen's disease* may be found.



News From
The Oklahoma State
Department of
Health

- 6. *Sexually transmitted diseases* may occur; all persons should have VDRL screens. STD's other than syphilis or gonorrhea may occur.
 - 7. *Anemia screening* is appropriate in all persons, but especially children.
 - 8. All will require enrollment in *routine preventive care programs*.
 - 9. Issues of *cultural differences and mental health* may be more grave in this year's refugees than in 1975; every effort should be made to assure that these persons are in contact with *adequate interpreters* and that appropriate personal support is made available.
 - 10. *Drug resistance to various antibiotics* is more common among all types of pathogens; *culture and sensitivity testing* should always be undertaken.
- The Epidemiology Division is available for consultation on a 24-hour basis, at (405) 271-4060. □

COMMUNICABLE DISEASES IN OKLAHOMA FOR JULY, 1979

DISEASE	JULY	JULY	JUNE	TOTAL TO DATE	
	1979	1978	1979	1979	1978
Amebiasis	2	4	1	10	19
Aseptic Meningitis	12	8	9	31	33
Brucellosis	—	1	1	1	3
Encephalitis, Infectious	2	2	4	13	11
Gonorrhea (Use Form ODH-228)	1142	1256	1164	7317	7768
Hepatitis A	23	13	18	137	196
Hepatitis B	19	19	5	59	93
Hepatitis Unspecified	25	16	23	100	116
Measles (Rubeola)	—	1	—	22	12
Meningococcal Infections	2	—	2	23	15
Pertussis	2	—	—	5	8
Rabies (Animal)	23	11	38	174	127
Rocky Mountain Spotted Fever	9	15	26	38	35
Rubella	—	—	—	22	11
Rubella (Congenital)	—	—	—	—	—
Salmonellosis	58	32	39	179	135
Shigellosis	18	30	16	111	165
Syphilis (Use Form ODH-228)	13	12	9	58	64
Tetanus	—	—	—	—	2
Tuberculosis	31	30	32	210	213
Tularemia	—	—	5	5	3
Typhoid Fever	—	—	—	—	2

New State Funds for Scholarships

A new physician-scholarship program has been approved by the legislature and signed into law by Governor George Nigh. It is designed to satisfy the need for doctors in rural communities and in Oklahoma's prison system.

The law permits medical or osteopathic medicine students to obtain financial aid from both a community and the Oklahoma Department of Corrections.

In 1975 the Oklahoma Legislature created the Physician Manpower Training Commission's Community-Matching Scholarship Program. The program provides state assistance to rural communities in need of medical care. The state matches funds with a community for the scholarship of a medical student. The student, in return, commits himself to a practice in that community for several years after he completes his training.

This program is still available, but the new law has provided additional assistance—through the Oklahoma Crime Commission—to medical students willing to commit themselves to a practice in an Oklahoma prison for several years.

The following medical students have had scholarship matches approved:

Gary R. Kindell, a first-year student at the Oklahoma University College of Medicine, has received matching funds from the town of Cleveland. Kindell will complete his training after a three-year residency in Family Practice in June, 1986. He has agreed to eight years of service in this community.

Patricia Williams and her son-in-law, Robert Woodruff, second-year students at the Oklahoma College of Osteopathic Medicine and Surgery will serve as part-time medical practitioners in a Latimer County town and part-time at the McAlester State Prison for four years.

James Knecht, a second-year student at the Oklahoma College of Osteopathic Medicine and Surgery, received matching funds from the Perry Medical Foundation. This match is

under the traditional Manpower Training Commission's Community-Matching Scholarship Program. He will return to Perry in 1982 for a full-time obligated practice of four years. □

VE Curbs Medical Costs

The health care industry has successfully demonstrated its ability to control medical expenses through a Voluntary Effort Program.

This program originated in 1978, in spite of the nation's rapidly rising inflationary trend. At that time the health care industry faced a 15.6 percent increase in costs. But the Voluntary Effort Program lowered this rate to 12.6 percent within that same year. Medical costs have remained steady during 1979 with a 12.8 percent rate of increase. However, doctors and hospital staff had hoped to cut expenses two percentage points per year. The goal in 1978 was 13.6 percent and 11.6 percent this year. Although the 1979 rate of increase was higher than desired, the national goal for both years was to maintain an average of 12.6 percent. The actual rate of increase during that time was a close 12.65 percent.

At the state level, Oklahoma's voluntary program produced even greater results. In 1978 the rate of increase fell to 11.7 percent. This year the rate increased to 12.8 percent, but the two-year average of 12.25 percent dropped below the original goal of 12.6 percent.

The health care industry is the only segment within this nation's economy making an effort to control rising costs through an organized voluntary effort. In 1978 this program saved patients approximately \$1.48 billion and according to the 1979 Consumer Price Index, the rising medical care costs are lower than the rise in cost for many other goods and services. □

OSMA and OCMS Conduct Drive

A dual medical student membership drive was conducted in August and September by the Oklahoma State Medical Association and the Oklahoma County Medical Society. The drive had a two-fold purpose, to encourage student interest in organized medicine and to solicit member-sponsors for these students.

Brochures describing the advantages of membership in organized medicine and a letter

from the presidents of the Oklahoma County Medical Society and the OSMA were issued to students to stimulate their interest.

Another letter to be distributed by the OSMA or the OCMS to OSMA members will also describe the advantages of students becoming involved in organized medicine early in their careers. In addition, the letter will request financial support from OSMA members by sponsoring a students' full dues for one year. The total cost is \$39.00.

Members and students participating in this program will be notified of one another. An attempt will be made to match students and members from the same area in the state. The number of students eligible to participate in this program will, of course, be established by the number of available sponsors. Acceptance of students will be determined by a first-come, first-serve basis.

Interested students are asked to apply through the county medical society where their medical school is located. At this time students attending the University of Oklahoma College of Medicine are eligible. The bylaws of the Tulsa County Medical Society do not at this time provide for student members, so students enrolled at the University of Oklahoma, Tulsa Medical College will not be contacted for student membership this year. □

AMA to Offer New CME Program Style

The American Medical Association will offer a new style of continuing education programs for doctors in 1980 by sponsoring a series of theme meetings.

Each program will emphasize one clinical subject, such as a disease, an organ system or a group of related treatments.

These programs will be designed for the non-specialist, but according to a news release by AMA, the programs will include advanced, sophisticated information to interest doctors having a specialized practice. Much of the meeting time will include workshops and small group discussions.

The first program is scheduled Thursday through Sunday, April 10-13 in Los Angeles. This theme meeting will feature information on coronary artery disease. The subject of clinical drug therapies is slated for the second meeting to be conducted Saturday through Tuesday, September 27-30 at Kansas City.

The first program will include a comprehensive review of coronary heart disease. Doctors attending the meeting will study how to evaluate risk of heart disease in their patients, stress-testing in office practice, rehabilitation after heart attack, management of angina, prevention of heart disease, how to read the electrocardiogram, the role of surgery in heart disease and other aspects of the problem.

Involved in the organization of the first program are the American College of Cardiology, American College of Chest Physicians, American Association for Thoracic Surgery, American Society of Clinical Pathologists, American College of Physicians, and American Society for Clinical Pharmacology and Therapeutics. □

AMA Compiles Physician Data Book

The American Medical Association compiled a book last summer including physician data information.

This publication, *Physician Distribution and Medical Licensure in the US*, contains material from the AMA Masterfile, a comprehensive and complete national source of physician data. Such information includes the number of doctors per county, state and metropolitan areas throughout the nation. The book also lists the number of hospitals, hospital beds, resident population, per capita and household income. Other information included in this new physician source-book are the specialties of doctors and the percentages of women and foreign doctors practicing in the United States.

The second part of this publication contains a comprehensive presentation of medical licensure information. This section provides information on licensed physicians and the licensure requirements of each state licensing board in the US. In addition to board policies, data are presented on the number of licenses that were issued in 1977.

The last two chapters on licensure are annual reports of the National Board of Medical Examiners and Educational Commission for Foreign Medical Graduates.

A copy of this publication can be obtained from the Department of Statistical Analysis, American Medical Association, 535 N. Dearborn Street, Chicago, Illinois 60610. The cost is \$15.00. □

OU Graduate Fills OSMA Position

The Oklahoma State Medical Association has hired a new communications specialist. She is Pam Litschke, formerly of Enid.

This new OSMA employee is a 1977 graduate from the University of Oklahoma. She obtained a Bachelor of Arts degree in journalism, and her special field of interest is public relations.

Miss Litschke assembles information for the news section of the *OSMA Journal* with a specific goal to collect more human interest stories about OSMA members. Suggestions for these articles from members are encouraged. She also assists with various public relations responsibilities.

Before her employment with OSMA, Miss Litschke was employed by a daily newspaper in Alva. She has also written for other publications including a newsletter issued to county and state officials. □

Health Benefits in Pollution Cleanup

"El Paso Revisited," is a report issued by physicians from the Federal Center for Disease Control at Atlanta and the El Paso County Health Department. The report documents evidence that health benefits do occur from pollution cleanup efforts.

In 1972 the mean lead blood level of more than half the children living within a mile of an El Paso lead smelter was considered to be at a seriously high level. In 1977, after engineering equipment was installed within the plant, the mean blood level of these children dropped far below a dangerous condition.

Theodore C. Doege, MD, AMA's director of Environmental Public and Occupational Health, said some authorities question the need to spend huge sums of money for federally-mandated environmental programs and controls. Doege refers to this El Paso case report to emphasize that clear-cut evidence of health benefits from pollution efforts is needed to reinforce more cleanup action. He also said physicians must become better informed regarding the health impact of pollution. □



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"A Little Bit of Texas" Begins Doctor's Hobby

"A little bit of Texas" in the form of a heifer revived the youthful interest of Dr and Mrs Don L. Gooch, Enid, into a hobby now involving their entire family.

In 1967 Dr Gooch completed his residency at Hermann Hospital in Houston, Texas. Before Gooch left Texas to begin his new practice in Enid, he purchased a heifer. She was a Santa

***I justed wanted to take a little bit
of Texas home with me.***

Gertrudis, a breed of Texas origin and well-noted for their size.

The couple wanted a small herd of cattle as a hobby after they moved to Enid, and she was the start. "It was only natural that we select cattle to be our hobby," Gooch said. This interest of both Gooch and his wife, Corinne, developed as a result of their rural Oklahoma backgrounds.

The physician and his wife wanted to pursue this hobby with a Lone Star animal, but had one problem . . . transportation. They had no trailer to carry the heifer across the border to her new home. Finally, this young Texas animal found herself trailing the Goochs' north-bound vehicle in a modified U-haul trailer. "I just wanted to take a little bit of Texas home with me," the physician said.

***Our whole family just loves
going to the ranch . . .***

Although this animal was the beginning of what was supposed to be a small hobby, the couple now own approximately 275 head of top Oklahoma registered Charolais cattle, a breed founded in France.

Gooch has extended his involvement with this hobby to include more than just having a herd. He is president of the Oklahoma Charolais Association and in September he and his wife were invited by the American-International Charolais Association to attend

a Charolais cattle tour in France as US representatives.

The physician maintains his herd on a ranch near Guthrie with the assistance of a ranch manager, Ben Kloxin. Last year Gooch exhibited his herd to more than 450 4-H and FFA youth who visited the Gooch ranch for a State Charolais Junior Field Day. The event included speakers, judging contests and an opportunity for statewide junior Charolais members to socialize with one another and other Oklahoma Charolais cattlemen.



Pictured with Dr and Mrs Don L. Gooch, Enid, is one of their Charolais cows.

A professional showman has also exhibited several of Gooch's cattle at national livestock shows. The doctor owned the 1978 National Calf Champion exhibited at a livestock show conducted in Houston, Texas.

The Gooch children also have taken an active interest in their parent's hobby. "Our whole family just loves going to the ranch whenever the opportunity is available. It's very relaxing," Gooch said. Donald, Jr., 15, and Clayburn Russell, 10, displayed first-place heifers at the 1978 Oklahoma State Fair held in Oklahoma City. The physician also has a daughter, Allison Glee. "She is too young to have a project of her own, but she is just as interested in the cattle as any of the rest of the members of our family," the Enid doctor said. □

Deaths

HUGH J. EVANS, MD
1899-1979

Retired, Tulsa ophthalmologist, Hugh J. Evans, MD, died in Tulsa August 25, 1979. A native of Pineville, Missouri, Dr Evans was graduated from Northwestern University Medical school in 1924. Following his retirement eleven years ago, Dr Evans became adviser for the American Red Cross Blood Center in Tulsa. In 1974, he shared the title of "Doctor of the Year" with two other Tulsa physicians — an honor conferred by the Tulsa County Medical Society Auxiliary. Dr Evans was a Life Member of the OSMA.

CASPAR A. HICKS, MD
1886-1979

Caspar A. Hicks, MD, Holdenville physician, died August 27, 1979. Born in Bellfontaine, Mississippi, Dr Hicks was graduated from the Tennessee University College of Medicine in 1913. He had practiced in Hamburg, Arkansas, Drumright and Wetumka, Oklahoma before establishing his practice of ophthalmology in Holdenville. Dr Evans was a Life Member of the OSMA and a member of the American Academy of Family Physicians and the Southern Medical Association.

MARVIN ELKINS, MD
1914-1979

A long-time Muskogee physician, Marvin Elkins, MD, died August 20, 1979. A native of El Reno, Oklahoma, Dr Elkins was graduated from the University of Oklahoma College of Medicine and his practice was begun in Muskogee in 1943. He retired in 1977. He was a Fellow of the American College of Anesthesiology and of the International College of Surgeons. □

Medical Team Prepares for Olympics

Medical services for spectators and athletes participating in approximately 80 sports events will be made available during the 1980 Winter Olympic Games at Lake Placid, New York, February 13-24.

These games are expected to attract more than 100,000 athletes, officials and spectators. "We have to hope for the best and plan for the worst," George G. Hart, MD, chairman of the Medical Arrangements for the Olympic Organizing Committee, said.

Assisting Dr Hart with these medical services will be 59 physicians and physical therapists, who are also prepared as athletic trainers and nurses.

Separate clinics will be maintained at each competition site. Priority at these clinics will be given to athletes who are capable of returning to participate in Olympic competition. Spectators will receive emergency treatment and be evacuated to the nearest hospital. Three area hospitals will be prepared for athletes and spectators who require hospitalization. Military helicopter teams also will be available to provide for medical evacuations.

Physicians from other countries will join the athletes of their respective nations at the winter games. These doctors will maintain a first-aid facility at their athletes' training site with help from an American physician if requested. Ambulance services will also be made available at each of these locations.

Experts from the Olympic Committee will conduct tests designed to detect the illegal use of drugs and steroids by athletes. Women athletes without a "certificate of femininity" will be required to undergo the X chromosome test to determine gender. □

"Scalpel In A Saddlebag" Now Available in Book Form

"Scalpel In A Saddlebag — The Story Of A Physician In Indian Territory: Virgil Berry, MD" by Margaret Berry Blair with the collaboration of R. Palmer Howard, MD, is now available in a hardback book from Oklahoma Heritage Book Center, 1500 North Robinson, Oklahoma City, Oklahoma 73103.

This story was first published serially in *The Journal of the Oklahoma State Medical Association*, Vols. 71-72, October, 1978 - January, 1979. Published by Western Heritage Books, Inc., this limited edition is priced at \$8.95. □

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Four OSMA Insurance Plans Address Doctor Disability

Physicians are uniquely exposed to the risk of long-term disability and the resultant financial impact which work-stopping illness or injury can have on their earning power — and the best hedge against such eventualities for most physicians is the purchase of adequate insurance protection.

Accordingly, the OSMA has reviewed its portfolio of sponsored insurance programs and recently announced a package of redesigned policies believed to be the best available to Oklahoma physicians.

OSMA Executive Director David Bickham reports that there are now four improved group-type plans available to physicians — all designed to work separately or as companion policies to assist physicians in meeting financial problems which may abruptly arise out of a disabling accident or injury. The policies involve protection against income loss . . . benefits to meet office overhead expenses . . . a hospital indemnity plan . . . and lump sum accident coverage.

"These programs are underwritten by high-

quality insurance companies,” Bickham said, “and are being marketed by our insurance counsellors, C. L. Frates and Company — with Mr Don Lanier having primary responsibility to service these plans for the OSMA.”

Bickham summarized the new plans as follows:

Disability Income Insurance: Physicians may apply for *weekly* benefits as high as \$500 per week (or \$26,000 per year). The indemnity payments — under the best of several options — will start on the first day of a disabling accident and on the eighth day of an illness—with accident benefits payable for life and illness benefits payable to age 65.

Overhead Expense Insurance: During a period of disability, this plan will defray office overhead expenses such as salaries, rent and utilities. The high option provides \$1,500 *monthly* for as long as 18 months. Premiums for this protection are tax deductible.

Hospital Indemnity Insurance: This policy augments basic or major medical and hospital benefits by providing up to \$100 *per day* for as many as 365 consecutive hospital confinement days.

Full-Time Accident Insurance: A principal sum of up to \$100,000 will be paid for accidental death or dismemberment.

Folders fully describing the insurance programs are available from the OSMA or from Don Lanier, c/o C. L. Frates and Company, 720 N.W. 50th, Oklahoma City, 73118 (Telephone 405/848-7661). □

Shock Treatment Still Best For Some Mental Ills

Electroconvulsive therapy in treating mental illness has come to be poorly understood and much maligned, but it still remains the most effective treatment for depression, says an editorial in the August 10 *Journal of the American Medical Association*.

The so-called “shock treatment,” which has a higher cure rate for depression than do the medications now used in psychiatric care, is being used less and less today, and may one day become extinct, the editorial points out.

Motion pictures such as “One Flew Over the Cuckoo’s Nest” have portrayed electroconvulsive therapy as something horrible that should

be avoided, writes John P. Callan, MD. But, in competent hands, it is usually safe and painless. The anesthetized, relaxed patient experiences no discomfort, does not feel the current, and has no recollection of treatment after awakening two minutes later.

Electricity has a long history of usefulness in medicine, and it is paradoxical that no one objects to electroshock to restart or regularize the heart, but that electrical stimulation to revitalize an ailing mind is challenged, Dr Callan writes.

“Clearly, electroconvulsive therapy has demonstrated its efficacy beyond doubt. It should not be permitted to fall into disuse. If it is abandoned, patients will suffer.” □

How To Kill An Association

“How to Kill an Association in 11 Easy Steps,” is the title of an article included in the August newsletter of the Tennessee Medical Association. The TMA newsletter said this information was taken from an issue of the “Medical Conference Planner,” which said this same article had been borrowed from the Winnipeg, Canada Convention and Visitors Bureau. Now the *OSMA Journal* continues this chain of information by presenting the following advice to its readers.

To kill an association:

1. Stay away from meetings.
2. If you come, find fault.
3. Decline office or appointment to a committee.
4. Get sore if you aren’t nominated or appointed.
5. After you are named, don’t attend board or committee meetings.
6. If you get to one, despite your better judgment, clam up until it’s over. Then sound off on how things really should be done.
7. Do not work if you can help it. When the Old Reliables pitch in, accuse them of being a clique.
8. Oppose all banquets, parties and shindigs as being a waste of the members’ money.
9. If everything is strictly business, complain that the meetings are dull and the officers a bunch of old sticks.
10. Never accept a place at the head table.
11. If you aren’t asked to sit there, threaten to resign because you aren’t appreciated. □

AMPAC Leadership Award, 1979



Orange M. Welborn, MD, chairman of the Oklahoma Medical Political Action Committee (OMPAC) accepts a 1979 American Medical Political Action Leadership Recognition Award from Michael P. Levis, MD, AMPAC chairman.

Recognition for this award is granted to state medical political committees each year with sustaining leaders holding the offices of AMA delegate, alternate-delegate, president, president-elect, and state PAC chairman.

In addition to these sustaining officers, every member of the OMPAC Board of Directors (33) is a sustaining member. □

Book Reviews

CLINICAL SYMPOSIA, 1976 ANNUAL. Summit, N.J.: Ciba Pharmaceutical Company, 1977, (sections numbered separately)

This is volume 28 in the well-known *Ciba Clinical Symposia* series. This is the 1976 edition and consists of five pertinent and well-done sections (reproduction of individual issues). They are entitled: "Parkinsonism," "Glaucomas," "Development of the Upper Respiratory System," "Burns in Children," and "The Infertile Couple." As is the case with other annuals, the topics are well chosen, successfully written and beautifully illustrated by Drs Frank Netter and John Craig.

Of course, *Clinical Symposia* have already established their place as attractive and useful publications. The annuals enhance this reputation.

Harris D. Riley, Jr., MD

PATHOLOGY. Vols. 1 and 2. 7th edition. WAD Anderson & J. M. Kissane (editors) 2148 pages. St. Louis: C. V. Mosby Company, 1977, Price \$39.40.

How many students have thumbed through the pages of the previous sixth edition of Anderson's "Pathology" since the first edition appeared? This text has been a notable success and has continued as such by keeping abreast of the new classifications and changing concepts in the field of pathology.

This edition, the seventh, reflects a further shift in emphasis to cell biology and the interactions of the many factors in the disease process. Not every morphologic detail has been described. The first few chapters on general concepts of disease, inflammation, healing and cell injury, as before, are well done. However, despite the shift in emphasis, genetics is given only brief treatment.

These two volumes will continue to be a standard reference. It is hoped that subsequent editions will strengthen the coverage of genetic principles.

Harris D. Riley, Jr., MD

PROGRESS IN MEDICAL GENETICS. (New Series, Vol. 2), edited by Arthur C. Steinberg, Alexander C. Bearn, Arno C. Motulsky and Barton Childs. 299 pages, \$27.50, Philadelphia, W. B. Saunders Co., 1977.

This monograph contains a new series of review articles that are authored by leading investigators from a variety of pertinent areas in medical genetics. This book is the second volume in the series. It contains six reviews on various timely subjects. The first article deals primarily with prenatal diagnosis of neural tube defects by means of measurements of the quantities of alpha-feto-protein in amniotic fluids. Procedures used in screening pregnant women for offspring with such defects are discussed. Determination of alpha-feto-protein levels in maternal serum appears to be the most promising procedure.

The second view deals with the association between the human leukocyte locus-A (HL-A) system and disease. The major histocompatibility complexes of man and experimental animals are discussed and the relationship between the H₂ system and immune responses in the mouse is presented. The frequency of oc-

currence of the various HL-A types is correlated with a variety of diseases in humans. The authors postulate an association between the HL-A system and the immune response in man that is maintained by linkage disequilibrium.

Progress concerning the role of heredity in the cause of manic depressive diseases is discussed in the next article. It presents an exhaustive review of the literature as well as a clear presentation on the current state of the subject. In the fourth article the authors attempt to characterize disease by measuring changes in the mRNA level, using the thalassemia syndromes as examples.

The next article deals with the clinical, molecular and genetic aspects and the geographic distribution of the lactase malabsorption syndromes. In the final paper, chromosome heteromorphisms are reviewed from the standpoint of their appearance, occurrence and geographic distribution. The authors furnish evidence that these heteromorphisms probably have no clinical significance, but are useful genetic markers.

Few sources provide a complete, up-to-date review of the wide range of the various rapidly advancing fields of medical genetics. The monograph can be well-recommended for its purposes.

Harris D. Riley, Jr., MD

ADVANCE IN MEDICAL COMPUTING. Proceedings of the Third International Symposium on Computers in Medicine. Edited by Jay Rose and J. H. Mitchell. New York: Churchill Livingstone, 1975, 189 pages. Price \$29.50.

This volume contains an introductory address, some 20 papers and several pages of questions and replies arising in the discussion. It constitutes the proceedings of the Third Triennial International Symposium on Computers held in Blackburn, England. The theme of the symposium was, "How can the computer be of assistance to medical personnel in their work?" The program consisted of 29 contributions from the United Kingdom, five from the United States, and one from Sweden.

A wide variety of subjects is treated. There are papers on the classification of diseases, the organization of computing facilities for clinical laboratories, computer diagnosis of acute con-

ditions within the abdomen and of jaundice. Other topics considered are specific computer applications in clinical laboratories, in electrocardiographic analysis, and in radiotherapy planning. There are also papers on data systems for use in general and in outpatient clinics.

The book will be of interest to general readers curious about computers in medicine; it is not intended for students. *Harris D. Riley, Jr., MD*

CLINICAL PEDIATRIC UROLOGY (two volumes). Edited by Panoyotis P. Kelalis, Lowell R. King, and A. Barry Belman, 1,107 pages, illustrated. Philadelphia: W. B. Saunders Company, 1976. Price \$62.00.

This two-volume work covers systematically and thoroughly our current knowledge in a subspecialty that has developed extremely rapidly over the past two or three decades. The distribution of specialties among the contributors attests to the ramifications of the field. Of the 34 authors which the editors have assembled, 21 are urologists, whereas the remaining 13 include four pediatricians and pediatric nephrologists, three radiologists, and one each from the fields of endocrinology, anesthesiology, oncology, surgery, gynecology, and genetics. The senior editors have written seventeen of the chapters either alone or in collaboration with others.

This work is a comprehensive and thorough one. Anyone from medical student to experienced practitioner in any specialty dealing with disorders of the genital-urinary tract in the young will find much of value in these two volumes. It can be recommended for hospital libraries and should be available to all pediatricians and pediatric urologists. *Harris D. Riley, Jr., MD*

AMBULATORY PEDIATRICS II. Personal Health Care of Children in the Office. M. Green & R. J. Haggerty (editors). 500 pages. Philadelphia: W. B. Saunders Co., 1977, \$22.70.

This is the second edition (in effect) of the well-known book by Green and Haggerty entitled *Ambulatory Pediatrics*. It is divided into three sections. The first two deal with the treatment and prevention of common organic

and psychologic problems of children and the third section includes a number of chapters devoted to the subjects of office management, business considerations and techniques of beginning and maintaining a successful practice. Pediatricians about to embark on a career in private practice will find the final section helpful.

The chapters are brief. Approximately 65 topics are discussed by some 42 physicians, chiefly pediatricians, from various medical centers in the United States. A short list of current and historically important references follows each chapter.

The book is well laid out. Each chapter covers a new topic and begins at the top of a new page. The headings are in bold face. The tables and figures are concise and few in number and are well done. An exception to this is the complex flow-chart describing the investigation of a patient with suspected urinary tract infection.

The book will be of special interest to persons concerned with the teaching and of general pediatrics.

Harris D. Riley, Jr., MD

EMERGENCY CARE HANDBOOK. HOW TO DEAL WITH PEOPLE IN EMERGENCIES. By Arthur R. Ciancutti. Westport, CT.: Technomic Publishing Co., 1977, 100 pages, illustrations. Price not given.

This small book is interesting and unusual. The author is a graduate of Case-Western Reserve University School of Medicine and had internship and residency training in pediatrics at the University of California in San Francisco.

The book contains a series of essays by Dr. Ciancutti on various aspects of patient-physician encounters in emergency room situations. The Preface sets the tone: "This is not a book about technological advances or about developing a new formalized system of health care delivery . . . It is, however, a book concerning the most important element in the successful delivery of health care: Your ability to care for and communicate with patients as well as other members of the Emergency Care team." He then proceeds to explore various areas of patient-physician relations. These are

situations of which a few house officers and physicians are intuitively aware, but most are not. The author gives numerous examples of situations in which only slight variations in the technic of interviewing can make the patient feel more comfortable and able to participate in a more meaningful way.

The book is written in simple and clear language. In the first chapter, "Whose Emergency?" several examples of different types of emergencies are cited and how these affect different individuals. The author stresses that "we are not involved in the emergency itself." He points out that help is always a two-way street and cites ten points which make up the system, five required of the person receiving help and five for the helper. Failure on any of the ten points results in the failure of the help transaction. In the chapter "The View From the Guernsey Up?" he reminds us, "The patient's point of view is a lot different from that of the person charged with his care. Being wheeled on a cart is a lot different from being the wheeler." The author wisely points out that a very valid approach toward assuming a patient's point of view is to ask yourself a question: "If I were the patient, what would I want from those delivering my care?" and in "Tuning in on the Patient's Wavelength" it is pointed out how one should immediately address the problem of defusing a hostile situation. He stresses that in periods of irritation we forget one important thing: The patient is there because he believes he is experiencing an emergency. He should have qualified this statement by adding, "in most instances." He reminds us that every person who approaches the patient should tell him in a friendly manner just who they are, why they are there, and what is going to happen next.

The only section which does not ring quite true is the chapter entitled "Pain." The author suggests that the amount of pain can be quantitated by measuring it in volume, color, and shape and by how much it intrudes upon one's daily activities. However, most of what he states will ring true to persons who have worked in an emergency room for any period of time and who have been perceptive about what patients tell them.

This is a useful, small book that will be helpful for anyone working in an emergency department, be he receptionist, physician, orderly, ambulance attendant or other. *Harris D. Riley, Jr., MD* □

ERRATUM

The *Journal* regrets that Figures 2 and 3 were reversed in the article S. Papper, MD, "Lactated Ringer's Solution — a Perspective" Vol. 72, September, 1979, p. 329. The correct combination of figure and caption follows:

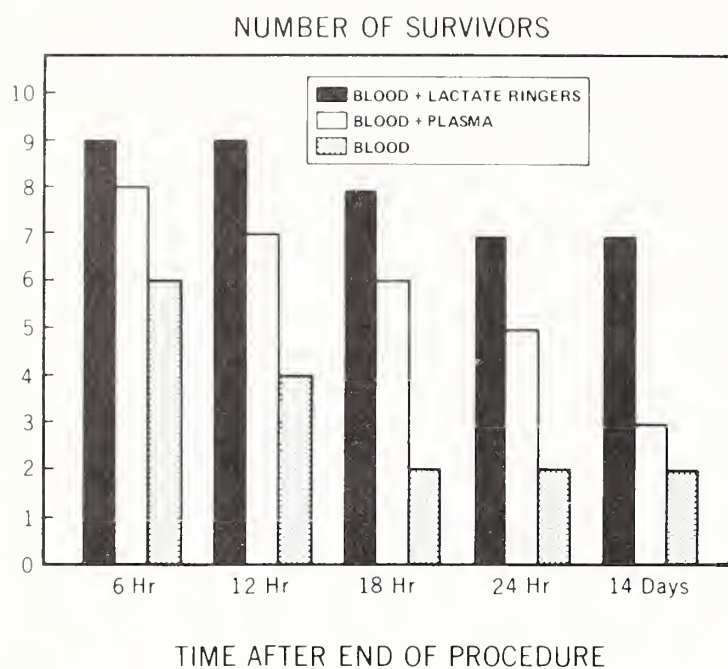


Figure 2. Acute hemorrhagic shock in dogs — survival study. The ordinate is numbers of dogs and the abscissa, the time after hemorrhage. From Shires, G. T., Carrico, C. J., Baxter, C. R., et al: *Principles in treatment of severely injured patients*, in Welch, C. E., et al (eds.): *Advances in Surgery* 4:255-324, 1970. Copyright © 1970 by Year Book Medical Publishers, Inc., Chicago. Used by permission of the author and publisher.

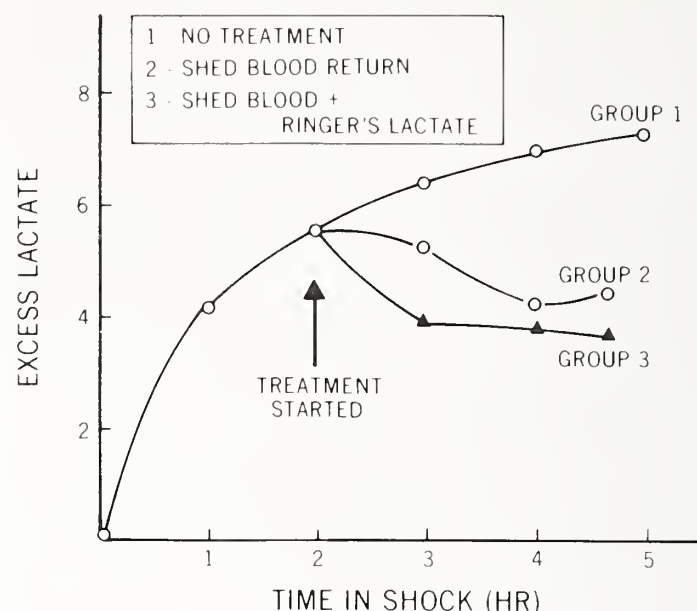


Figure 3. Levels of "excess" arterial lactate in dogs subjected to hemorrhagic shock and treated as indicated. "Excess" lactate is a seldom used term originally calculated to delineate the amount of lactate generated in "excess" of that accounted for by increased production of pyruvate. It was believed that "excess" lactate quantitatively reflected anaerobic metabolism. From McClelland, R.N., Shires, G. T., et al, *Balanced salt solution in the treatment of hemorrhagic shock*. *JAMA* 199:830-834, 1967. Copyright © 1967, American Medical Association.

Miscellaneous Advertisements

OPHTHALMOLOGIST, ENT AND PEDIATRIC physicians needed for multispecialty group (22). Guarantee plus incentive and excellent corporate benefits. Inquiries confidential. Jim Freed, MD, Chickasha Clinic, P.O. Box 1069, Chickasha, Oklahoma 73018.

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Worth Repeating

As a matter of policy, *The Journal* does not reprint previously published articles and editorials. However there are many times when strict adherence to such a policy deprives us of an opportunity to pass on to our readers some profound wisdom or valuable information. The following article seems to contain both. It was written by Doctor Ernest Lachman and appeared in the *Oklahoma County Medical Society Bulletin*, June, 1975. It is reprinted as our guest editorial with the permission of its author who was Regents Professor Emeritus of Anatomical and Radiological Sciences, University of Oklahoma Health Sciences Center and the *Oklahoma County Medical Society Bulletin*.

Serendipity

Some years ago there appeared in "The New Yorker" a cartoon showing an old man on his deathbed. Bending over him, the doctor transmits to his kin his whispered final request: "Will someone please look up the word serendipity and tell me what it means!"

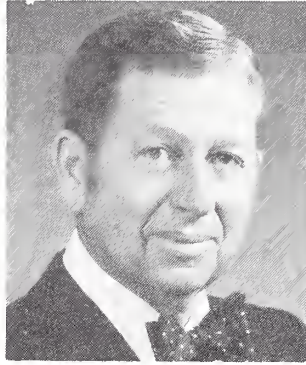
For a long time I suffered from the same curiosity. My own definition of the term, of which I was not quite certain, seemed to imply that a serene state of mind would facilitate important scientific discoveries. From a book entitled *Serendipity and the Three Princes* I learned the true meaning of the word, its derivation, and its originator. This knowledge has helped me in understanding the phenomenon of creation and discovery which at all times has intrigued scientists and men of letters. The originator of the term is the British writer Horace Walpole, who in 1754 in a letter to a friend coined the word, referring to an oriental tale called "The Princes of Serendip" (Ceylon). This tale described the travels of three princes who were always discovering, "by chance and sagacity, things which they were not in quest of." Words lead their own life and change their meaning by a kind of transmigration. Thus the concept developed that serendipity is identical with an "accidental" discovery. The public media willingly accepted this definition, since it seems more dramatic and glosses over the inequality of man.

From a study of the history of science and medicine it becomes obvious that discoveries are made in two ways. They may be the result

of an orderly progression of experiments, motivated by conscious reasoning, which might culminate in an important discovery. But there is a great deal of evidence that more frequently there is no planned step-by-step system of progress based on an extension of what is already known. One is overwhelmed and perplexed by the frequency with which certain insights erupt spontaneously from the unconscious. The Germans call it "Geistesblitz" or flash of inspiration. Who is likely to have this kind of creativity? Is it the person who has the most encyclopedic knowledge in the field? This is not likely. Such a person may suffer from hardening of his intellectual arteries. He is so aware of the pitfalls of his research and his mind is so conditioned that he will hardly arrive at revolutionary conclusions. Banting and Szent-Gyorgyi, both Nobel laureates, have pointed to their lack of familiarity with the voluminous literature in their fields, which has helped rather than hindered their creative research. However, fundamental productivity in science presupposes a prepared mind, acquired by an assimilation of pertinent knowledge through investigation of the field, which in no way is identical with an inhibitory channeling of the mind along conventional pathways. The innovative discoverer has to preserve his child-like curiosity. Examples are legion from Newton and Galvani to Jenner, Pasteur, Roentgen and Fleming. We all have looked with misgiving at the culture plate that was ruined by fungi in the laboratory, but only Fleming recognized the usefulness of the disturbing mold as a bactericidal agent. More humorous is the complaint of the pre-Roentgen physicist to his manufacturer that his cathode ray tubes fogged his photographic plates. Thus we come back to that definition of serendipity which stresses the prepared mind of the discoverer. If on the other hand we accept the popular definition of serendipity, ie that we are dealing with happy accidents, then the great innovators certainly are "accident-prone." *Ernest Lachman, MD*

Keeping Up

When the night is long and restless with worry, one problem comes frequently to mind. It is keeping up with medicine. This is more than just learning the newer scientific discoveries in the art and the science. It also involves the study



of the professional relationship concerning our philosophy, economy and the outside intrusion by non-medical regulators which seriously affects patient-care and relationship of the patient to his physician. To keep up, a world of specialty and general medical literature must be read and digested. This includes our own splendid publication, *The Journal of the Oklahoma State Medical Association*. To do all this, an infinite number of hours of effort and concentration are needed.

But how does one keep up?

Here is one way. It is a suggestion from the wisest, best and closest medical teacher I have known, my father. He stated, "Just reading the editorials of the *Journal of the American Medical Association* in each issue will keep you quite up-to-date."

To further this concept, let us briefly examine the editorials in JAMA for the first-third of this year. This covers the first 17 issues from January to April, 1979, inclusive. In these issues, there were 39 relatively brief editorials. All but three written by physicians. Medical subjects were involved in the greatest number. The latitude and range of subjects were extensive. It varied from genetic counseling for the beginning of life to Hospice

patient-care at the end of life. There was explanation of new drugs and reasons for old drugs. The physician's role in quality control of new devices was expressed with explanation of new devices such as C.P.C. (Circumferential Pneumatic Counterpressure for Hemorrhagic Control). There were thoughtful suggestions for the treatment of newer diseases and newer concepts for the treatment of older diseases, such as Lyme Arthritis, Botulism, Kawasaki Disease and Streptococcal Endocarditis. Laboratory information and discussion of surgical controversy help ground out the many faceted problems found in all medical fields.

There was much discussion of issues which do not specifically pertain to the art and science of medicine. This involved many fields of interest: general politics and medical politics; medical writing and medical journals; medical philosophy and medical history; and medical schools and foreign medical graduates. From the medical-religious field of medicine, there was an item of thoughtful stimulation, "Holistic Health or Holistic Hoax." Even the need for computers was evaluated. Of special interest was a discussion of Continuing Education as compared to Continuing Medical Education.

It is not possible to both adequately and briefly review all the information which was presented. The editorials in JAMA are fascinating and interesting. The variety of their subject matter is infinite. Each is separate, each is informative, and each is productive for the busy, time-conscious physician. Should one be able to absorb much of this information, it is a way of "keeping up."

Wm. W. Leebron, M.D.

Subacute Thyroiditis: Analysis of Eighteen Cases

ELIOT J. KATZ, MD
JAMES L. MALES, MD

The recognition of subacute thyroiditis requires an analysis of the clinical presentation along with the use of selected laboratory tests, specifically thyroid hormone concentrations, erythrocyte sedimentation rate and radioactive iodine uptake.

INTRODUCTION

Subacute thyroiditis is an inflammatory condition of the thyroid gland. It usually has a benign, self-limiting course, though at times symptoms may be severe with repeated exacerbations. It was first described in 1895 by Mygind under the name of "Thyroiditis acuta simplex."¹ and more recently by other descriptions including "de Quervain's," "giant cell," and "granulomatous" thyroiditis. Subacute thyroiditis is currently thought to be due to a viral infection and is considered distinct from

acute thyroiditis (a bacterial abscess of the gland) and from chronic lymphocytic autoimmune thyroiditis (Hashimoto's).

Classically, the disease presents several weeks after an upper respiratory infection with neck pain in the region of the thyroid which may radiate to the ears, jaws, teeth, or it may manifest itself as a sore throat.² There are often symptoms of hypermetabolism, reflecting the discharge of thyroxine into the blood from the damaged thyroid cells. On examination, one finds an enlarged, firm, tender gland and often, fever. The laboratory hallmarks include increased serum thyroxine (T₄) associated with a very low thyroidal uptake of radioactive iodine. The erythrocyte sedimentation rate (ESR) should be elevated and the PBI frequently is increased out of proportion to the serum T₄, reflecting the discharge of iodinated protein fragments as well as intact hormone into the blood. The condition usually resolves spontaneously over several months, though many patients will become transiently hypothyroid before reestablishing normal values.³

A review of the recent literature reveals that subacute thyroiditis, however, does not always present in such a straightforward manner.⁴⁻⁸ In order to examine this question, we have made a retrospective analysis of the charts of 18 patients seen in the last 36 months in the Thyroid Laboratory of Presbyterian (Oklahoma City) Hospital.

From the Department of Internal Medicine, University of Oklahoma Health Sciences Center and Oklahoma City Clinic and Thyroid Laboratory, Presbyterian Hospital, Oklahoma City, Oklahoma.

MATERIAL AND METHODS

The charts of all patients seen since June 1975 for evaluation of thyroid disease were screened for the diagnosis of possible subacute thyroiditis. Of 29 such charts, 18 were selected as fulfilling reasonable clinical criteria for the diagnosis of subacute thyroiditis. In particular, a 24-hour radioactive iodine uptake of < 6%, an elevated ESR, and improvement with time in these values as well as in symptoms and signs, were required. One of our selected patients had a radioactive iodine uptake (RAIU) value exceeding our limit, ie, 9%. The diagnosis, however, was documented by histopathologic examination. All but one of our patients had an elevated ESR. This patient was included because of an otherwise characteristic presentation and clinical course. Eleven patients were rejected from the study for a variety of reasons. Three individuals had a suggestive initial presentation, but follow-up studies were not available to demonstrate improvement in abnormal laboratory tests and symptoms as our criteria required. Two other patients were rejected because of insufficient initial laboratory tests, ie, RAIU and ESR. Six were eliminated because laboratory tests were not compatible with the diagnosis of subacute thyroiditis.

Serum T₄ determinations were performed using Corning RIA kits with a normal range of 5.4 - 13 µg/dl. T₃ resin uptakes were done by Squibb Thyrostat kits with a normal range of 25 - 35%. Sedimentation rates were measured by the Wintrobe method with a range of 0-9 mm/hr for men and 0-20 mm/hr for women. Thyroid gland uptake and scans were performed following oral administration of 100 microcuries I¹³¹ with determinations at 24 hours (normal uptake up to 30%). Thyroid antibody and PBI measurements (normal range 4-8 µg/dl) were assayed by the Bio-Science Laboratories in California.

RESULTS

Our series of 18 patients included 11 women and seven men. The ages ranged from 24 to 81 years with a mean of 51 years. No distinct seasonal predominance for the onset of symptoms was noted, though the greatest incidence was seen in the winter (35%).

The symptoms experienced by the patients

TABLE I

LIST OF SYMPTOMS	TOTAL	%
Pain in Neck, Ear, Jaw, Teeth, or Sore Throat	16	89
Heat Intolerance	7	39
Palpitations	7	39
Nervousness	5	28
Weakness, Malaise, Fatigue	4	22
Sore throat or dysphagia without pain elsewhere	4	22
Recent URI	3	17
Fever	3	17
Weight Loss	2	11
Diaphoresis	2	11
Diarrhea	1	6
Hoarseness	1	6

are listed in Table I in order of decreasing frequency. The most common symptom was pain but two subjects had no discomfort at any time. Symptoms of hyperthyroidism were prevalent, consisting mostly of heat intolerance, palpitations and nervousness. Other complaints such as weight loss, diaphoresis and diarrhea were noted less often. Upper respiratory infections which antedated the symptoms of subacute thyroiditis were recalled by only 17% of the patients.

One patient is of interest in that his neck pain shifted over a period of several months from the left to the right side and then subsided. This is characteristic of subacute thyroiditis, occurring in up to 30% of cases.²

Thyroid enlargement and/or firmness was the most common physical finding (72%), though 28% had no palpable thyroid abnormality. Thyroidal tenderness was an important finding as were signs of increased thyroid activity including warm moist skin, hyperkinesis, tachycardia and, less commonly, tremor and hyperactive reflexes. (Table II) Three of the 18 patients had neither thyroid enlargement nor facial or neck pain.

TABLE II

List of Physical Signs	Total	%
Thyroid enlargement and/or firmness	13	72
Thyroid area tenderness	9	50
Skin changes (increased warmth, moisture)	7	39
Hyperkinesis	6	33
Tachycardia	6	33
No palpable thyroid abnormality	5	28
Lid lag	3	17
Arrhythmia (Atrial fib-2, PAT-1)	3	17
Tremor	2	11
Hyperactive Reflexes	2	11

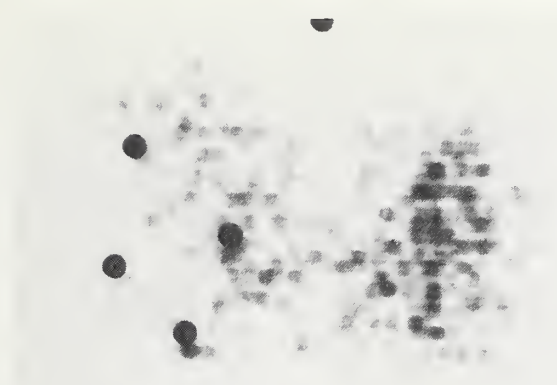


Figure 1A

Fifty-seven-year-old woman who presented with two-week history of right neck tenderness. Physical examination revealed tender fullness in the right lobe. I^{131} scan shows bilateral disease but greater involvement on the right.



Figure 1B

One month later, symptoms and physical findings had become generalized and the scan did not visualize. Two-and-one-half months after the onset of the thyroiditis, symptoms and signs had resolved and the scan was normal.

Although thyroid enlargement was a common finding, only two patients had discrete nodules. One patient had diffuse goiter (the only patient with a known goiter prior to the onset of thyroiditis) with a 1.5 cm nodule palpated in the left lobe which persisted for two months. The goiter was still present at eight months, but the nodule was not apparent. Another patient had a small nodule in the left

lobe midway through her course which resolved concurrently with the general thyroid enlargement. Cardiac arrhythmias were present in three patients, two presenting for the first time with atrial fibrillation and a third with paroxysmal atrial tachycardia.

One-half of the patients appeared to have more involvement of one side of the gland than the other. This was most convincingly shown in three patients. In the first two cases, the right lobe was enlarged more than the left, was more tender on the right, and the thyroid scan showed greater loss of function on the clinically involved side. In one case, the gland subsequently became diffusely tender and could not be visualized by scanning. (Fig I) In another case, the gland was diffusely enlarged but more tender on the left. The scan also confirmed this by showing decreased uptake on the left. In this patient, the gland size increased dramatically over a two-week period. The diagnosis was not clear and thyroidectomy was performed. Fig II shows the histopathology demonstrating granulomatous subacute thyroiditis with two incidental colloid nodules with focal hemorrhage.

Table III summarizes the laboratory data. Thirty-three percent presented with a high serum T_4 while 61% had values in the normal range. One patient presented with a low T_4 , suggesting that a hypothyroid phase of subacute thyroiditis had already developed by the time the patient was first seen.

An initial elevated serum T_4 did not invariably predict a severe course, though two of six patients presented with the recent onset of at-

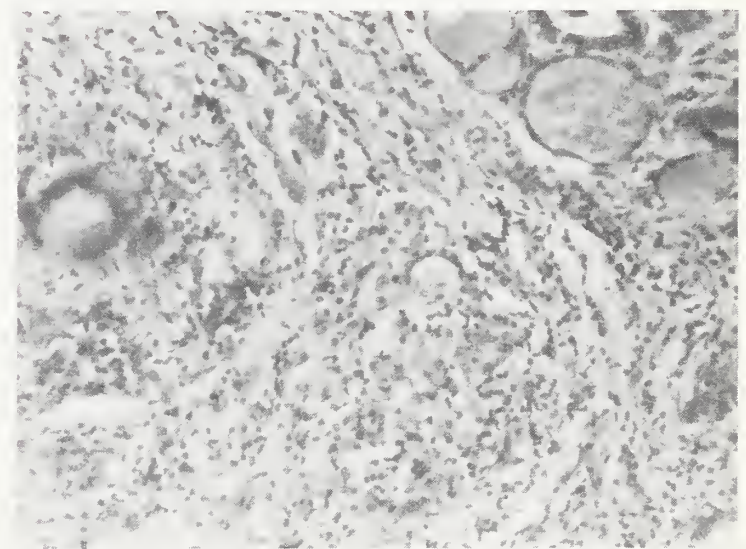


Figure 2

Photomicrograph of thyroid tissue of a patient showing giant cells on the left side, inflammation, scarring and disruption of follicles (magnification $\times 100$).

TABLE III
PRESENTATION OF LABORATORY DATA

	Mean Baseline value (range in parentheses)	Mean Maximum change in value over time (range in parentheses)	Mean Time required for max. change from time of first presentation (range in parentheses)	Mean Time required for max. from onset of symptoms (range in parentheses)
Serum T ₄ (all patients)	11.3 µg/dl (3.9-18)	6.9 µg/dl (1.7 - 14.5)	2.1 months (1 - 6)	3.7 months (1½ - 7)
Erythrocyte sed. rate (all males)	33 mm/hr (23 - 47)	24 mm/hr (11 - 33)	2 months (1 - 3)	4.4 months (2 - 7)
Erythrocyte sed. rate (all females)	31 mm/hr (14 - 57)	24.1 mm/hr (1 - 54)	3.3 months (1 - 8½)	4.3 months (1½ - 9½)
Serum T ₄ (patients treated with prednisone)			1.7 months (1 -2)	3.4 months (1½ - 7)
Serum T ₄ (patients <i>not</i> treated with prednisone)			2.9 months (3/4 - 8)	4.0 months (1 3/4 - 9)
Erythrocyte sed. rate (patients treated with prednisone)			1.7 months (1 - 2)	3.3 months (1½ - 7)
Erythrocyte sed. rate (patients <i>not</i> treated with prednisone)			3.4 months (1 - 8½)	4.8 months (2 - 7)
Radioactive iodine uptake (24 h) RAIU (all patients)	2.1% (0 - 9)		2.9 months (1 - 9)	4.1 months (2 - 9½)

a) Serum T₄ (normal range 5.4 - 13 µg/dl)

b) Radioactive iodine uptake at 24 hrs. (normal range 8 - 30%)

c) Erythrocyte sedimentation rate (normal range 0 - 9 mm/hr for men and 0 - 20 mm/hr for women)

rial fibrillation. Three of these were thought to be sufficiently ill to require a brief tapering course of prednisone, while only three of the remaining twelve patients required this treatment. The serum T₃ RIA was measured in eight patients. It tended to be elevated when the serum T₄ was also increased, but it was never elevated when the T₄ was normal.

The PBI is frequently elevated out of proportion to the serum T₄. It was assayed in five patients and was more than 2 µg/dl greater than the simultaneously-calculated thyroxine index in two patients.

The erythrocyte sedimentation rate was elevated in 16 of 18 patients. In one, it was normal but measured only after the other parameters had returned to normal. The ESR consistently returned to normal in those patients who recovered as confirmed by other parameters.

Eight patients had thyroid antibody tests. These included antithyroglobulin (anti-TG) in

antibodies detected by tanned red cell hemagglutination and the measurement of antimicrosomal antibodies. The results were entirely normal in five cases. The other three had insignificant anti-TG titers, but the anti-microsomal titer was variously elevated at 1:4, 1:1600 and 1:6400.

The white blood cell count was measured in seven patients and was normal in all. The white blood cell count is variously reported in the literature as being normal² or occasionally elevated.⁹ It has been reported that serum cholesterol is normal in subacute thyroiditis.² It was measured in five of our patients and was found to be low in three.

The RAIU was always depressed at initial presentation but became elevated during the hypothyroid phase and was often the last abnormal value to return to normal. In four patients, a mild residual increase in RAIU remained after all other values normalized.

Three of the six subjects who presented ini-

tially with an elevated serum T₄ subsequently developed transient hypothyroidism which Volpé suggests is indicative of a severe illness,³ but 50% of all our patients (as defined by the findings of a subnormal serum T₄ at any time during the course of their illness) did this as well. Only one patient had evidence of clinical hypothyroidism. The hypothyroid phase appeared one and one-half to four and one-half months into the course with a mean time of two and one-half months. Serum TSH was elevated in most of these patients.

Thyroxine administration quickly reestablished a normal T₄ and TSH in these patients. With recovery from the disease, spontaneous euthyroidism generally ensued. One patient, however, was still hypothyroid after long-term thyroxine treatment.

Of the nine patients who did not have a hypothyroid phase (therefore, a milder illness), one is newly diagnosed and her course is not yet known, and another underwent thyroidectomy. The remaining seven recovered completely at intervals ranging from two-to-seven months.

Three patients required no medication, but a majority received courses of aspirin and propranolol. Six patients received one-week courses of prednisone (60 mg daily, tapered to zero in one week). Although Volpé recommends continuing prednisone for a month in more severe cases,¹⁰ our patients' symptoms subsided promptly in response to the shorter courses used. One patient, however, did receive prednisone for three weeks.

Three brief case reports will serve to illustrate the varied presentations of subacute thyroiditis:

CASE # 1. POSSIBLE CONFUSION WITH THYROID CARCINOMA: A 55-year-old man presented with a six-week history of painful thyroid enlargement but did not have symptoms of abnormal thyroid metabolism. Examination revealed a firm, diffusely enlarged gland which was tender on the left. Laboratory studies indicated euthyroidism, but the ESR was elevated at 47 mm/hr. The RAIU was 9% with uptake seen only in a small portion of the right lobe. Two weeks later, the gland had clearly increased in size. The diagnosis of malignancy was considered and the patient underwent a subtotal thyroidectomy, revealing granulomatous subacute thyroiditis.

CASE #2. PROTRACTED COURSE: A 47-year-old man presented with a history of in-

termittent hypermetabolic symptoms over the preceding seven years and was symptomatic when seen. Examination revealed a non-palpable gland. Serum T₄ was mildly elevated, while RAIU was 1.5%. When seen later following a one-week tapering course of prednisone, his symptoms had resolved promptly and his RAIU was 26%. A diagnosis of atypical subacute thyroiditis was made.

CASE #3. ACUTE SEVERE ILLNESS:

A 32-year-old woman presented with a two-week history of neck pain, weakness, temperature of 101° and symptoms of hyperthyroidism. Examination revealed a hyperkinetic individual, a pulse of 140 beats per minute, moist skin and an enlarged, woody-hard, tender thyroid gland. Serum T₄ was 18 µg/dl with an ESR of 57 mm/hr. The RAIU was zero. A three-week course of prednisone led to complete remission of symptoms. She then entered a minimally symptomatic hypothyroid phase of her illness with complete recovery documented nine months after the onset of her initial symptoms.

DISCUSSION

The age distribution of the patients was fairly typical. Other series show an average age of 41-49 years.² It is predominantly a disease of females, the F:M ratio usually ranging from 4:1 to 6:1.¹¹ The ratio in our series was atypical in that it was only 1.5:1.

Eliot J. Katz, MD, was graduated from St Louis University School of Medicine in 1974. After completing his residency in internal medicine, he finished a two-year fellowship in endocrinology. Doctor Katz is certified by the American Board of Internal Medicine and is presently taking further postgraduate study in New Zealand.

A 1966 graduate of the University of Oklahoma College of Medicine, James L. Males, MD, has been certified by the American Board of Internal Medicine and the American Board of Internal Medicine – Endocrinology and Metabolism. Doctor Males is clinical assistant professor of the Department of Medicine at his school of graduation. He is a member of the Endocrine Society, the American Thyroid Society and a Fellow of the American College of Physicians.

Signs and symptoms were generally predictable. Hypermetabolism and painful thyromegaly often with radiating pain (to the ears, jaw and throat) were perhaps the most significant and clinically helpful findings. Two patients had the recent onset of atrial fibrillation. Streffling¹² reported a case of occult subacute thyroiditis in which the principal finding was acute atrial fibrillation causing severe congestive heart failure, although neck pain and thyromegaly were not present. The importance of considering hyperthyroidism (including that from subacute thyroiditis) as a cause of atrial fibrillation deserves renewed emphasis. Papapietrou and Jackson⁸ also describe several cases with atrial fibrillation but without neck pain or gland enlargement.

It is well accepted that most patients should present with neck pain and gland enlargement with tenderness.¹³ Indeed, most of our patients presented in this manner, but three had none of these symptoms. One had experienced intermittent hypermetabolic symptoms for the preceding seven years and had had an elevated serum thyroxine at some time in the past. The second presented with palpitations and the onset of atrial fibrillation. The third reported long-standing nervousness and discomfort in the chest. He presented with a resting tachycardia of 120 beats/minute, and a thyroid abnormality was suspected. The absence of pain or tenderness can draw attention away from the thyroid gland and make diagnosis difficult. Aside from the fact that all three patients were male, their laboratory evaluations including serum T₄ at initial presentation, at point of maximum fall, RAIU, etc., appeared comparable to the majority of our patients. In addition, the ESR was elevated in each case, making factitious hyperthyroidism unlikely.

The erythrocyte sedimentation rate, though nearly always elevated, was not as high as in other series. Saito,¹¹ for example, reports a mean value of 72 mm/hr. An elevated or high normal serum thyroxine on initial presentation is characteristic. The pathophysiology centers around thyroid follicle destruction causing release of thyroid hormone into the blood. The radioactive iodine uptake is depressed because of suppression of thyroid stimulating hormone by the elevated serum thyroxine¹¹ and because of damage to the iodine trapping mechanism.⁹

One-half of our patients passed through a hypothyroid phase of their illness. In Volpé's series of 56 cases, only 20% did so and were classified as having "very severe" involvement. Volpé found no proven cases of permanent myxedema in his series and this is thought to be a rare event. Permanent hypothyroidism was identified in one case in this series, and the patient remains hypothyroid nine months after her illness.

Repeated exacerbations of the illness occur in 20% of cases whether remission develops spontaneously or with treatment.¹⁰ Two of our patients had this complication. Although full clinical and laboratory recovery generally ensues after several months the disease will rarely persist for a year or more, especially with the presence of a goiter or mildly elevated RAIU. We have seen this effect in a number of our patients.

Treatment often consists of explanation and reassurance, but simple analgesics (usually aspirin) and the use of propranolol to control peripheral manifestations of hypermetabolism are frequently given. Brief, rapidly-tapering courses of prednisone are reserved for more severe cases. Although adrenal steroids will dramatically relieve symptoms, they have never been shown to shorten the course of the disease and even appear to be associated with exacerbations if they are discontinued too quickly.² The data in Table III suggest that prednisone hastens normalization of serum T₄ and ESR, but the results are not statistically significant.

One of the most interesting aspects of subacute thyroiditis in the recent medical literature has been a growing awareness of atypical cases. Some features are so unusual that the diagnosis is in doubt and may, in fact, represent a new disease, "hyper-thyroiditis."¹ The emerging picture is that of an acute presentation of hyperthyroid symptoms with or without thyroid enlargement and without significant facial or neck pain. The RAIU is depressed, and the condition is self-limited as one would expect with subacute thyroiditis. However, tissue examination has consistently shown pathology most compatible with chronic lymphocytic (Hashimoto) thyroiditis.

Dorfman, et al,⁵ presented eight patients with this disease variant. They caution that biopsies done after recovery from classic histologically proven subacute thyroiditis resemble chronic lymphocytic thyroiditis. They re-

late that four of their biopsies were done during the acute phase. It would be difficult to label this entity as chronic lymphocytic thyroiditis, however, since their antithyroid antibody tests were negative and spontaneous recovery ensued. None of their patients had neck pain in the region of the thyroid or had a goiter.

Other investigators report similar findings. Woolf and Daly⁶ describe five patients with hyperthyroid symptoms, a markedly depressed RAIU and no neck pain or tenderness. Three patients had thyroid gland enlargement. One underwent biopsy, the results of which were compatible with chronic lymphocytic thyroiditis. Gluck, et al,⁷ also report four similar cases.

Five of our patients did not present with thyroid enlargement (including three without pain) and one-half did not have thyroid gland tenderness. Their clinical courses were compatible with an atypical subacute thyroiditis. In the absence of tissue documentation, however, there is a possibility that some of our patients had this apparently new disease entity.

CONCLUSION

The diagnosis of subacute thyroiditis is generally not difficult if one looks for the collective symptoms of hyperthyroidism, neck, ear, jaw or throat discomfort, and thyroid enlargement associated with a low I¹³¹ uptake. The latter finding is imperative in making the diagnosis

and in distinguishing the disorder from Graves' disease or from a toxic nodule. One also looks for the associated findings of an increased erythrocyte sedimentation rate and negative or transient mild elevations of thyroid antibodies. Atypical cases may present with hyperthyroid symptoms or atrial fibrillation but not with neck pain. Thyroid enlargement is not always present. Conservative treatment with aspirin and propranolol is usually sufficient with a one-to-several-week course of prednisone reserved for severe cases. Monitoring of patients with hypothyroid phases is important in order to detect the unusual case of permanent myxedema. □

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James L. Males, MD, 701 Northeast Tenth, Oklahoma City, Oklahoma 73104.

Sodium — An Overview

SOLOMON PAPPER, MD

Under most physiologic circumstances in man, sodium balance is well maintained, *ie*, the intake and output of the cation are the same. In the absence of excessive sweat or gastrointestinal losses, the kidney is the major organ responsible for sodium elimination.

Two facts result in a very close relation between sodium excretion and the volume of extracellular fluid (ECFV). First, sodium is the major extracellular cation and along with its associated anions accounts for almost the entire solute concentration (osmolality) in the extracellular fluid. Since the cells are freely permeable to water, a change in extracellular fluid osmolality is associated with movement of water into or out of cells. Second, the overall renal handling of sodium is accompanied by water.

Hence decreased renal excretion of sodium generally results in an expansion of ECFV while increased sodium excretion results in a contraction of ECFV. Conversely, it is also not surprising that ECFV influences renal sodium excretion. Thus expansion of ECFV is normally followed by increased sodium excretion while a contraction of ECFV results in sodium

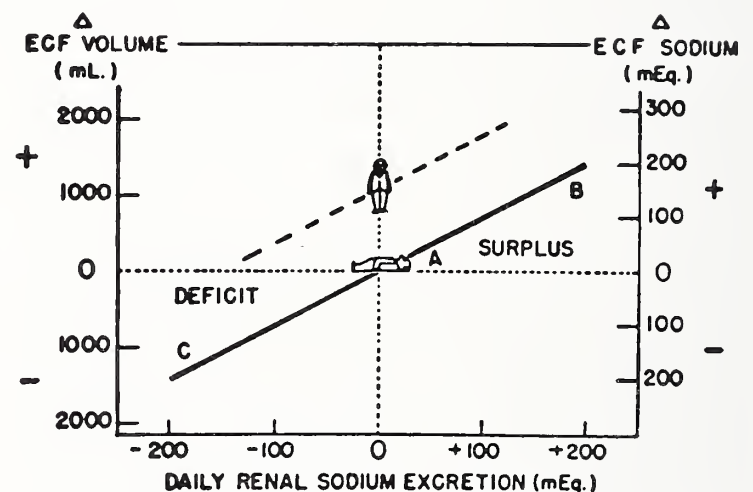


Fig 1. A diagram expressing the very close relationship between sodium excretion and extracellular fluid volume. From Strauss, M.B., et al. Surfeit and Deficit of Sodium, *Archives of Internal Medicine* 102:527-536, 1958. Copyright 1958, American Medical Association. Published with permission.

conservation. This very close relationship is illustrated in Fig 1.

Renal Handling of Sodium (Fig 2)

The kidney has great capability for eliminating large quantities of sodium as well as the capacity to excrete only a few milliequivalents each day. Sodium is filtered at the glomerulus and reabsorbed along the length of the tubule, normally in accordance with the needs of the body. Under physiologic circumstances, the major burden for renal regulation of sodium

From the Department of Medicine, University of Oklahoma Health Sciences Center and Medical Service, Veterans Administration Medical Center, Oklahoma City.

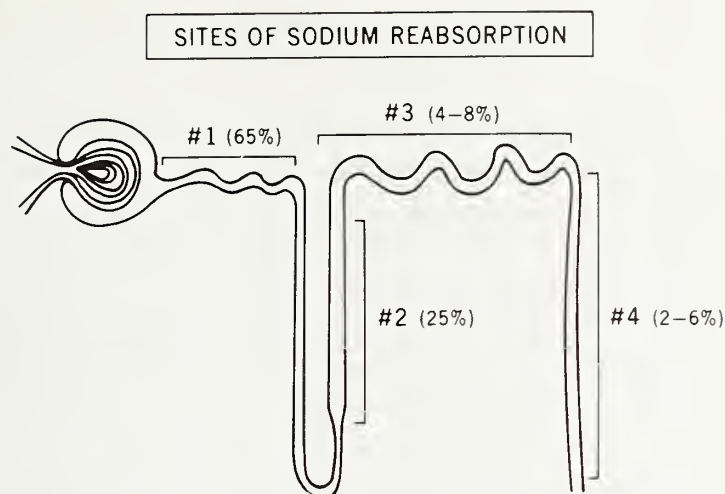


Fig 2. Site and approximate percent of filtered sodium that is reabsorbed.

excretion in man rests with tubular reabsorption. Approximately 65% of the filtered sodium is reabsorbed in the proximal tubule without requiring the action of antidiuretic hormone (ADH). In the ascending limb of the loop of Henle, an additional 25% of the filtered sodium is reabsorbed. Chloride is the prime mover in the loop of Henle and sodium has the role of the attendant cation. Since there is little or no net water reabsorption in this locus, the tubular fluid arriving in the distal tubule is always hypoosmotic. An additional 4-8% of sodium is reabsorbed in the distal tubule. The remaining sodium is reabsorbed along the collecting duct where the final adjustments are made.

In summary, one may view the renal handling of sodium as taking place in two major stages. (1) The *proximal* transport system is characterized by large quantity reabsorption against a small concentration gradient. Reabsorption is incomplete with large amounts of tubular fluid proceeding into the loop, distal tubule and collecting duct. Levinsky has aptly referred to this first, proximal state as "gross tuning." (2) The "fine tuning" occurs in the distal tubule and collecting duct where smaller amounts of sodium are reabsorbed against large concentration gradients.

FACTORS INFLUENCING REABSORPTION OF SODIUM

A variety of factors influence renal tubular reabsorption of sodium. We shall first list them and then attempt to place them in an overall conceptual framework.

1. Glomerular filtration rate (GFR) is the first step in sodium excretion and is sometimes referred to as Factor 1.

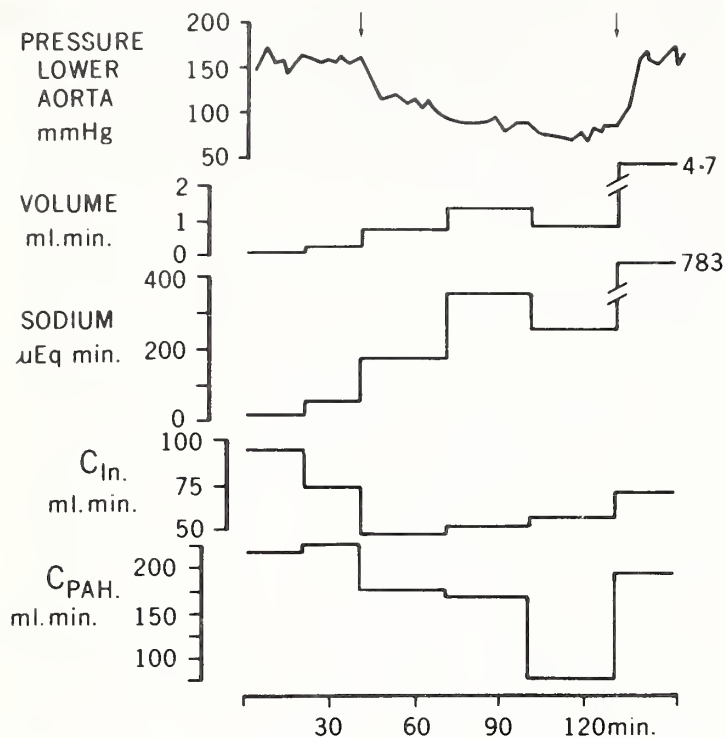
2. It is well-known but not well-explained that an increase in filtered sodium is followed by a proportionate increase in tubular reabsorption of sodium. This phenomenon is referred to as "glomerular-tubular balance" and it appears to serve the purposes of the body economy of sodium.

3. There is excellent evidence that peritubular capillary Starling forces determine renal tubular reabsorption of sodium. For example, a reduction in peritubular oncotic pressure or an increase in hydrostatic pressure results in less tubular reabsorption of sodium. Although elegantly demonstrated experimentally, the precise role of the Starling forces in the daily adjustments of sodium excretion in normal and abnormal states is not established.

4. It is conceivable that a redistribution of renal blood flow from cortex to medulla might result in more filtrate traversing nephrons (juxtamedullary) with longer loops of Henle allowing for the possibility that more sodium reabsorption can occur. There is also evidence that disease states associated with sodium retention have a cortical-medullary shift of blood flow. Nonetheless, the quantitative contribution of this occurrence to alterations of sodium reabsorption is not known.

5. Aldosterone (Factor II) augments the rate of tubular reabsorption of sodium. However, changing levels of this adrenocortical steroid are not required for increased sodium reabsorption in response to appropriate stimuli. Thus a patient with Addison disease, receiving a constant quantity of adrenocorticosteroids and having no capacity to increase endogenous hormone production, can still respond appropriately to stimuli for increased sodium reabsorption. There is also excellent evidence that aldosterone requires 30-60 minutes to effect sodium transport while many reabsorptive changes occur far more rapidly. Finally, chronic mineralocorticoid excess causes only transient sodium retention; once ECFV is sufficiently expanded, sodium excretion increases and returns to its presteroid level. We cannot therefore explain all changes in sodium reabsorption in terms of aldosterone activity alone. Nonetheless, aldosterone is of importance in the quantitative aspects of sodium reabsorption.

6. There is compelling, if not conclusive evidence for the existence of a "natriuretic hormone," stimulated by volume expansion and serving to inhibit sodium reabsorption. This is



The de Wardener experiment.

Fig 3. The de Wardener experiment. Effect on urinary sodium excretion of an intravenous infusion of saline while the renal arterial perfusion pressure and clearance of inulin (C_{In}) and PAH (C_{PAH}) were reduced by use of a balloon to occlude partially the thoracic aorta of a dog. At the same time, excess mineralocorticoid was administered. The balloon was inflated and the saline administered between the time indicated by arrows. There is a rise in sodium excretion. From de Wardener, H. E., et al, *Clinical Science* 21:249-258, 1961. Published with permission.

often referred to as "Third Factor" or Factor III. While the material(s) is not completely characterized nor is its source known, de Wardener, who first postulated its existence in a series of beautiful experiments (Fig 3), has suggested that its origin is in the brain.

7. Although hydrogen-ion secretion in the tubule is at least in part carried out in exchange for sodium ions, for the most part acid-base balance is not a major quantitative factor in overall renal sodium handling.

8. There is evidence that the sodium content of tubular fluid in the macula densa, through inadequately defined mechanisms perhaps influencing GFR and/or the secretion of renin, may also be a factor in regulating sodium excretion.

9. Neural factors have also been shown to affect sodium reabsorption. Diminution of adrenergic neural impulses tends to result in decreased sodium reabsorption and increased excretion of the cation. It is not known whether

neural factors operate via alterations in renal vascular resistance or through direct actions on tubular cells or both.

10. Prostaglandins, probably produced by the renal interstitial cells may also influence sodium reabsorption under certain conditions. Prostaglandin E, for example, has been found to stimulate sodium reabsorption.

11. Other non-humoral factors, such as plasma sodium concentration, and humoral agents such as parathyroid hormone, thyroid hormone, and insulin have also been shown to influence sodium reabsorption by the renal tubular cell. Their role in normal sodium regulation is not known.

12. There is also a diurnal variation in sodium excretion. Its precise mediation is not certain.

We shall now try to provide a conceptual framework whereby the factors that influence sodium excretion are seen to do so largely (but not exclusively) in response to alterations in ECFV.

EXTRACELLULAR FLUID VOLUME AND SODIUM EXCRETION

The important role of the ECFV as a determinant of sodium reabsorption has already been alluded to. However, it is not the total ECFV that is critical. For example, patients with cirrhosis and ascites have an expanded total ECFV but appear to "behave" physiologically as if they had a contracted volume. The transfer of two liters of peritoneal fluid to an antecubital vein in cirrhosis results in decreased sodium reabsorption and suggests that the location of the ECFV determines its effectiveness. Because some still inadequately defined portion of the ECFV, or some function of it, is physiologically influential, the term "ef-

Solomon Papper, MD, was graduated from New York University College of Medicine and has been certified by the American Board of Internal Medicine. He is Distinguished Professor and Head of the Department of Medicine at the University of Oklahoma Health Sciences Center. Dr Papper is Governor, Oklahoma Region, American College of Physicians and a member of the American Society of Clinical Investigation, the Association of American Physicians and the American Federation for Clinical Research.

fective" ECFV (EECFV) has evolved. An increase in EECFV causes decreased sodium reabsorption and increased excretion while conversely a contraction of EECFV results in increased sodium reabsorption and decreased excretion.

How does ECFV influence renal tubular reabsorption of sodium? Fig 4 presents a format for considering the issue, although many of the facts are simply not available. EECFV may affect tubular reabsorption either by direct or indirect mechanisms.

One example of a direct mechanism relates to the Starling forces. Thus if one expanded EECFV with saline this would dilute the concentration of proteins in the peritubular capillaries with resultant decreased oncotic pressure. Such expansion might also be expected to increase the hydrostatic pressure in the peritubular capillaries. Both changes in oncotic pressure and hydrostatic pressure serve to reduce sodium reabsorption and increase sodium excretion. Another example of a direct mechanism might be the redistribution of blood from cortex to medulla that appears in certain instances to follow contraction of ECFV. The mechanism(s) whereby this shift of blood flow is implemented is not known.

There may be indirect mechanisms for sensing changes in EECFV which are then relayed through some efferent system to the renal tubular cells. Such an apparatus requires a "volume receptor" which has been postulated varying to exist perhaps in the form of a local baroreceptor in the "cephalad portion of the body," in the distribution of the internal carotid artery, the atria of the heart, the great vessels of the chest and in the arterial tree itself, including the aorta. Wherever and however the change in volume is perceived, an efferent mechanism that has received much attention is the adrenal cortical secretion of aldosterone. A decrease in EECFV stimulates the adrenal gland to secrete aldosterone which then allows the renal tubular cell to reabsorb more sodium. As already mentioned, increased reabsorption of sodium can occur in response to contracted volume in the absence of increased aldosterone, although quantitatively the aldosterone mechanism is important. However the volume is "perceived," another efferent arc is probably the secretion of a humoral material (natriuretic hormone—Third Factor) that inhibits sodium reabsorption, and there is appropriately more or less of such substance de-

SODIUM EXCRETION

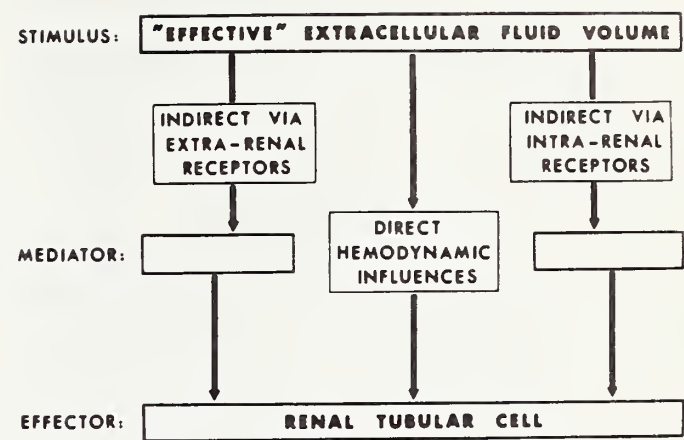


Fig 4. A framework depicting the possible general ways in which extracellular fluid volume may influence the renal tubular reabsorption of sodium. From Papper, S. *Clinical Nephrology* (2nd ed.), Boston: Little, Brown and Co., 1978. Published with permission.

pending on the directional change of EECFV. Other indirect mechanisms may exist.

The kidney itself has at least one intrarenal mechanism for sensing some hemodynamic consequence of a change in volume. The juxtaglomerular cells (J-G) are sensing as well as secretory organs and they detect a change in some aspects of pressure within the afferent arteriole. Recognizing a decrease in EECFV, the J-G cells respond by secreting renin which is followed by the formation of angiotensin, a potent stimulus of aldosterone secretion. We have also referred previously to the possibility that tubular sodium in the macula densa may influence sodium excretion. Fig 5 provides some details in varying stages of knowledge and conjecture in the conceptual framework provided in Fig 4.

SODIUM REABSORPTION BY SEGMENTS

It is not the purpose of this paper to attempt a dissection of the many controversial and contradictory aspects of which humoral and non-humoral factors determine sodium reabsorption in the different segments of the nephron. This was elegantly reviewed in 1978 by Reineck and Stein. My own assessment of the present body of knowledge is that in the proximal tubule ("gross tuning") sodium reabsorption is largely volume-determined and mediated by the Starling forces, glomerular tubular balance and probably also by natriure-

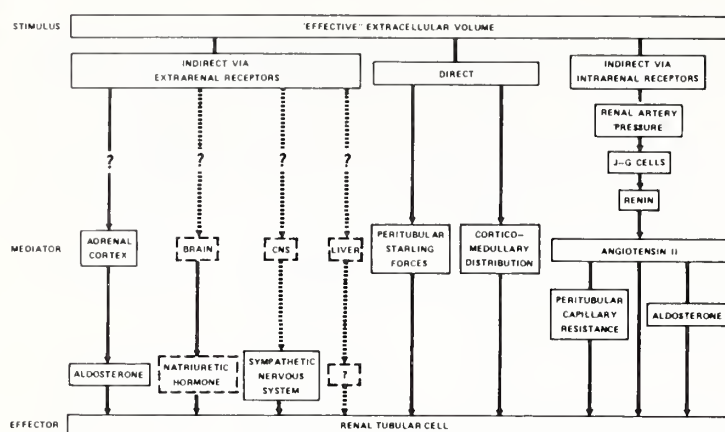


Fig 5. The framework from Fig 4 is used to depict some possible specific mechanisms by which extracellular fluid volume may influence the renal tubular reabsorption of sodium. From Papper, S. *Clinical Nephrology* (2nd ed.) Boston: Little, Brown and Co., 1978. Published with permission.

tic hormone, redistribution of blood from cortex to medulla and neural factors. In Henle's loop, where chloride transport is the prime mover, sodium reabsorption seems more related to delivered load than response to ECFV. In the distal tubule, ("fine tuning") sodium reabsorption is probably in part determined by changes in ECFV as well as non-volume factors (eg, perfusion rate). The volume component is probably mediated in part by aldosterone and is little influenced by Starling forces or natriuretic hormone. Although the data are less firm, the collecting duct ("fine tuning") is probably in part response to volume change that is mediated via aldosterone.

THE EDEMATOUS STATES

The three major clinical states characterized by edema are heart failure, cirrhosis of the liver, and the nephrotic syndrome. Although many details are not available, they all are suspect of "behaving" physiologically as if they had a contracted ECFV despite obvious expansion of total volume; ie, EECFV is reduced. (Fig 6) In the case of cirrhosis, fluid may be physiologically "sequestered" in the peritoneal space and hence not perceived by the organism. (There is, however, another hypothesis of ascites formation in cirrhosis, the "overflow" theory, which places renal tubular reabsorption as the primary event with ultimate "overflow" into the peritoneal cavity.) In the nephrotic syndrome, the reduced oncotic pressure secondary to urinary protein losses causes leak-

age of fluid out of the intravascular compartment which might therefore be sensed as a reduction in volume. Heart failure, viewed in the context of a reduced cardiac output may result in a lower volume in that portion of the circulation—perhaps the fullness of the arterial tree—which is sensitive to "volume" changes.

In all three disease states, a decreased ECFV may be conceived of as setting in motion the same physiologic events as a reduction in dietary sodium in the normal individual with resultant increase in sodium reabsorption. (Fig 6)

The observation of increased levels of aldosterone and cortical-medullary redistribution of renal blood flow at least indicate that these mechanisms of translating decreased EECFV to renal tubular action may be operative. The observation that adrenergic blockade in heart failure under certain conditions results in natriuresis perhaps indicates that neural mechanisms are also involved.

Fig 6 graphically displays the obvious fact that sodium retention is a long series of steps away from the primary causes — heart disease, cirrhosis, and the nephrotic syndrome. Wherever possible, optimal treatment of the underlying condition is important, with salt restriction and diuretic drugs viewed as adjuncts.

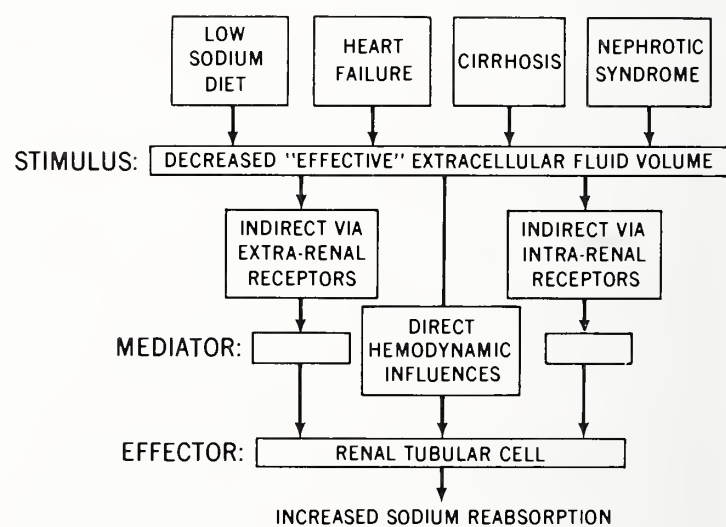


Fig 6. A framework depicting the general ways in which the presumed reduction in "effective" extracellular fluid volume of edematous states results in increased tubular reabsorption of sodium and reduced excretion of the cation. The framework also indicates that similar mechanisms operate in normal individuals who eat a low sodium diet. From Papper, S. *Clinical Nephrology* (2nd ed.) Boston: Little, Brown and Co., 1978. Published with permission.

SUMMARY

The renal regulation of sodium is intertwined with the volume of extracellular fluid. Since most adjustments in sodium elimination in man are accomplished via alterations in tubular reabsorption, it is not surprising that the tubular reabsorptive mechanisms are sensitive to changes in ECFV. Thus, an expanded ECFV results in less reabsorption and more excretion of sodium, and a contracted ECFV has the converse effect. The effects may be accomplished by indirect mechanisms including a volume receptor mechanism and efferent mechanisms such as aldosterone and "natriuretic hormone," as well as by a sensing apparatus within the kidney such as the juxta-

glomerular apparatus. Changes in ECFV may have a more direct route of influence on sodium reabsorption via direct alterations in the peritubular capillary Starling forces. Patients with edema, heart failure, and cirrhosis may be viewed as "behaving" physiologically as normal individuals with a contracted ECFV. □

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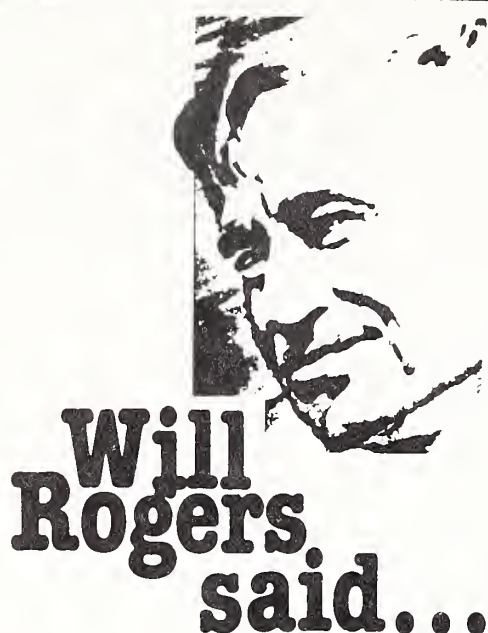
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Informed Consent as Respectful Communication

JOAN E. SIEBER, PhD

*Well-meant procedures sometimes bring
out the worst in people – and defeat
their own purposes*

Informed consent can serve as respectful communication that reduces stress and that builds rapport and trust. However, whether it actually does so depends largely on the context in which it is administered. Under certain circumstances, the administration of informed consent may diminish — rather than enhance — rapport, trust and communication.

RESPECTFUL COMMUNICATION

The value of respectful communication between physician and patient is virtually unquestioned. One need only hear a recovering patient say: "I knew I was in the very best of hands." to recognize that stress is reduced and healing processes are enhanced by communica-

tion that conveys respect and competence, and that creates trust and rapport. Some of the elements of such communication are:

Respect for the patient as a person in whatever way is appropriate. Respect is an expression of caring which, in the case of the competent, conscious, alert patient means sensing and acknowledging the individual's unique personality, values, abilities, and interests, and respecting the patient's right to self-determination. In the case of patients who are not competent to communicate actively or make decisions, it means attending to whatever the patient or the patient's family are able to communicate, and assuring them that everything possible will be done to protect the patient's interests.

Communication with the patient in language the patient understands and uses. The physician learns the patient's views on his or her condition, and then communicates the diagnosis and makes recommendations for treatment in terms that the patient is sure to understand. The physician provides ample opportunity for the patient to ask questions, and makes sure that his or her answers have satisfied the patient's need for information. The physician uses the patient's idiom and asks for clarification as needed. For example, if a patient says, "I feel awful," the physician might

respond with "How do you feel awful?" rather than, "What is wrong?" or "Where is the pain?" If the patient's answer is, "Right here, you know . . .", the physician would counter with, "I know what?" A reply of, "It's that dull numb feeling that keeps coming back," might be clarified with the question, "Keeps coming back when?" And so on.

Effective use of verbal and body language. The physician communicates through many modalities, such as vocabulary, tonality, rate of speech, breathing, posture, and eye contact. The effective communicator uses vocabulary that the patient can comprehend; speaks in gentle direct tones at about the same rate of speech used by the patient; breathes deeply and calmly; stands or sits straight and relaxed; and is accessible to eye contact by the patient. To communicate effectively and with empathy, one's mind must be relatively clear of distracting thoughts, and one must have positive regard for the patient and say what is honest and appropriate to the circumstances. Communication then creates rapport and understanding, and is not stressful to either party.

In contrast, the physician who entertains thoughts and feelings that are incompatible with respect and desire to communicate is likely to engage, unwittingly, in nonverbal communication that is *incongruent* with the spoken words. Such a speaker is likely to:

Shake his or her head "no" while saying something positive.

Speak in a high voice or in a harsh voice.

Tense the neck and facial muscles.

Breathe quickly and shallowly.

Omit details that the patient wants to hear.

Avoid eye contact when the patient seeks it.

Assume a posture very different from that of the patient when there is no need to do so.

Speak too rapidly.

Laugh inappropriately, express hostility, or make distracting movements.

Give the patient no graceful opportunity to formulate and ask questions.

Incongruence in communication is perceived by the listener, even if only at an unconscious level, and it may produce stress, anxiety, and doubt.

So much for what every physician already knows about good communication.

WHAT DOES INFORMED CONSENT ACCOMPLISH?

Why is informed consent obtained from patients? To protect them from harm? To respect their right to decide what is to be done to them? To create an open and equitable relationship between patient and physician? To communicate with patients about their condition and recommend treatment in a way that max-

Canterbury v. Spence

When Jerry Canterbury, aged 19, sought treatment for severe back pain, the seeds were sown for a legal case that would create great confusion about the definition of adequate informed consent. It was determined that Jerry Canterbury needed spinal surgery. His physician, Dr Spence, obtained Jerry's written consent to surgery and the verbal assent of his mother, who lived a few hundred miles away. After the operation was performed, Dr Spence ordered that the patient not be allowed to get out of bed without assistance, but apparently this order was not communicated effectively to the nursing staff. Canterbury attempted to get out of bed and fell to the floor, severely injuring himself. Paralysis resulted, apparently from the fall, and further surgery did not restore normal function. Jerry Canterbury has been severely and painfully incapacitated for several years, and presumably he will remain so for the rest of his life.

In 1972, the US Court of Appeals for the District of Columbia Circuit held Dr Spence negligent for failing to inform his patient of the possible risk of paralysis, since such risk indeed was inherent in the surgical procedure — although the actual paralysis probably was caused by the accidental fall during the postoperative period. Dr Spence asserted that it is not good medical practice to communicate about improbable risks that might deter patients from undergoing needed surgery. The court rejected the prevailing judicial practice of seeking expert medical testimony as to what constitutes the current medical standard for adequate informed consent (on grounds that no such standard actually exists and no physician is

imizes their sense of knowing, trusting, and well-being? To keep patients from feeling pressured to do something possibly against their will? To keep the physician from being sued for negligence?

How valid are any of these reasons? All of these are reasons a physician might give for obtaining informed consent, and all are valid

likely to testify that the disclosure in question falls below the medical standard). The court held that a jury, rather than an expert witness, should decide what would constitute adequate disclosure in a given case and that, in principle, an adequate disclosure would be one that conveys what a reasonable person would want to know in comparable circumstances.

The court criticized the therapeutic privilege of a physician to withhold information from a patient, and placed on the defendant-physician the burden of proof that the privilege was properly exercised. The jury was ordered to consider whether all material information had been conveyed to Canterbury, and whether a reasonable person would have been able to assess the risks and make a rational decision on the basis of the information conveyed by Dr Spence. Dr Spence's disclosure indeed failed to mention some very low probability risks, but it is debatable whether it thereby failed the "reasonable person test." In any event, the jury rendered a decision in favor of Jerry Canterbury, perhaps largely on the basis of pity for the suffering, paralyzed, and penniless young man.

As a reaction to this case, many hospitals and physicians have drawn up detailed and elaborate informed consent statements that run to two or more pages and list every conceivable associated risk with its probability value. It is important to ask whether these documents really provide the protection that physicians want. Are more complicated informed consent statements what is needed to forestall malpractice suits? Are there not other, more effective ways of protecting oneself from unwarranted allegations of malpractice?

and sensible reasons under certain circumstances. However, the first reason usually is only valid if the patient holds different values or weighs certain risks and benefits differently than would the physician. Few patients want to try to decide for themselves what procedure would entail the least risk to themselves. Most prefer to follow a trusted physician's advice. The last reason — avoiding a malpractice suit — is also of dubious validity, if taken in isolation from the three reasons that precede it. In areas of medical practice where malpractice suits are common, there are some physicians who have practiced for decades without so much as a threat of a malpractice suit. Why this is so is a matter of conjecture. However, many believe that it is due to respectful and open communication that establishes trust and two-way dialogue with patients, and certainly not due to the legal adequacy of their informed consent statements!

ADEQUATE CONSENT FORMS AND ADEQUATE INFORMED CONSENT

Adequate informed consent means that there has been clear and open communication between physician and patient. Typically, it means the physician has discussed the proposed course of action with the patient in terms that the patient understands, has mentioned any risks that are generally considered to accompany that course of action, and has answered the host of practical questions that the patient is likely to have about such matters as length of treatment, pain, recovery period, and so on. The physician has probably given the patient a few relevant anatomical and medical facts, and provided further information required by the patient. At the close of such a process, the patient is likely to feel that he or she has been given the opportunity to decide what is to be done and has confidence in the physician.

But, isn't this what an adequately worded consent form conveys?

No! A consent form is only a written statement — cold facts on a sheet of paper. It can be administered to precisely the opposite effect — unwittingly. This is illustrated by the following example from a well-known West Coast medical center, in which the identical written consent form was administered in two sharply contrasting ways.

At age 38, Mrs. Z, a well-educated professional person, decided to have a tubal ligation.

She learned about the various forms of the operation and the attendant risks and discomforts, then made an appointment at a prestigious hospital to arrange for the operation. Upon arrival, she was shown to an office by a receptionist. An anxious-looking physician arrived, propped himself in a half-sitting, half-standing position in the doorway, and ascertained that she was indeed the woman whose name was in his appointment book and who wanted a tubal ligation. The physician informed the prospective patient that this was unnecessary surgery and asked if she knew that. She attempted to explain, in a sentence or two, the background and rationale of her decision, but he appeared not to hear her. He read off a long list of possible causes of death and disablement associated with the operation, with probability values attached to each. The probability values were, of course, quite low and were already known to Mrs. Z, and yet she began to experience fear. She tried to assuage the fear by telling herself that the physician was socially immature and unable to communicate, and that this was no measure of his competence as a surgeon. She tried to dismiss the significance of the informed consent procedure by telling herself it was a formality she could ignore since she already knew all that she needed to know about the operation in order to make an intelligent, informed decision. However, her attempts to console herself were not successful. Prior knowledge and the physician's spoken words were not nearly as powerful as the impact of his nonverbal communication and his failure to treat her as a person in her own right. She felt as though she had been told that the odds were ten-to-one that she would be wheeled out of the operating room dead! She also felt that once she signed the form, the physician wouldn't care whether she lived or died; he had done his duty by reading off the probabilities of death and disablement. Mrs. Z's sympathy for the physician turned into anger. Her mind did some more odd things. She fantasized suing him for malpractice, and experienced a sense of some control over her malaise as she did so. Hardly able to keep her composure, she told

the physician she would make up her mind later, and left in a confused state.

Mrs. Z found, to her amazement, that she felt too shaken to drive home. She looked up a friend who worked in a laboratory elsewhere in the medical center and took her out to lunch. That friend was a caring person who restored her sense of equilibrium. They discussed the disastrous informed consent procedure and the friend explained that the hospital had become very tense and legalistic in an attempt to forestall its increasing number of malpractice suits. They joked a bit about the side effects of a combative stance against potential malpractice suits. It seemed ironic that the hospital's attempts to forestall malpractice suits were so perfectly designed to put patients into a state of mind to sue!

A few days later, Mrs. Z obtained an appointment with a gynecologist at a nearby and almost equally prestigious medical clinic to discuss her "unnecessary" tubal ligation. She felt a slight sense of foolishness, as though she were arranging for a facelift. However, she quickly overcame her flutter of anxiety and embarrassment as the nurse led her into an office and introduced her to a physician who stood straight and relaxed, whose skin tone, voice, breathing — and a host of other cues — conveyed that he knew himself and was comfortable about communicating with her. They discussed briefly her motives for wanting the operation. He gave a simple description of what the operation would be like. They discussed her current physical condition and he seemed pleased to learn she was a long-distance runner. He indicated that recovery would probably be rapid but that it would be inadvisable for her to run, drive, or make serious professional commitments for the two days following the operation. He discussed the probable recovery rate, the risks connected with the surgery, and what would be done to minimize those risks. He made certain — through statements, questions, and eye contact — that she understood what he said about risks. She let him know she understood there were risks of disablement or death. Finally, he indicated that there was a formal consent form and showed her that it covered the matters they had discussed. Then, as before, he made sure that all of her questions had been satisfactorily answered. She signed the consent form and looked forward to the operation without apprehension or fear.

Dr Sieber is professor of psychology at California State University, Hayward, and senior visiting research scholar at the Kennedy Institute of Ethics, Georgetown University.

Though the two *consent forms* were identical, the second experience, in contrast with the first, was one of *adequate, respectful* informed consent. It was an experience that involved full and congruent communication. It engendered in the patient a strong sense of trust, rapport, and respect for her physician.

Because I am professionally concerned with issues such as informed consent, I have often marveled at the contrast between my two experiences. (I know whereof I speak: I am Mrs Z.) The first physician failed completely to forestall the patient's inclinations to file a malpractice suit (regardless of the prospects of the suit's success) because of his overly defensive attitude. I distrusted and disrespected him instantly. He was speaking to an adversary who resided in his fantasies, threatening malpractice suits at every moment — he was not talking to me. Yet, within minutes, I had become his adversary; I ceased being able to imagine he could do anything competently or honestly.

Patients about to undergo risky treatment typically are in no position to make rational decisions based on statistical information about the associated risks, though they are entitled to that information. However, such patients are highly attuned to the congruity of their physician's communication. Evidence of disrespect, impatience, negative attitude, or confusion is readily discerned and is highly distressing, especially if the patient considers the proposed treatment urgent, and hence feels compelled to consent despite the disquieting nature of the communication. It is this aspect

of informed consent that is crucial if trust and rapport are to be established.

It is ironic that a formal, legal requirement of signed informed consent can evoke in the physician and patient precisely the psychological attributes that produce poor communication, distrust, and anger. Does fear of malpractice suits create a self-fulfilling prophesy? Certainly, the factors that lead to malpractice suits are many and varied, and the quality of communication between physician and patient is only one of these. However, it is a factor well worth our attention since dealing with it is relatively easy. Clear, congruent communication can be taught in workshop format. Such a workshop would enable physicians to experience and explore the causes of their discomfort about communicating; it would help them gain the ability to identify and resolve troubling issues, and thus to communicate more congruently. Such training could change one's entire approach to communication. The process of recognizing the feelings that affect one's communication can lead to other, more profound changes in one's priorities and behavior.

Suppose that half of the hospitals and clinics that are deeply concerned about malpractice suits reallocated the financial resources currently expended on "preventive" legal assistance to provide communication workshops for physicians. One might ponder whether these institutions would have relatively healthier, happier patients and fewer malpractice suits than their counterparts whose physicians did not receive such training. □

Home Health Care

In Oklahoma there are eight private and public agencies engaged in the delivery of Home Health Care Services throughout the state. There are no laws requiring licensure or a certificate of need for Home Health Care agencies in Oklahoma. Only if an agency elects to meet the criteria for medicare certification is the public assured that the Home Health Care agency meets any standards regarding qualifications of its personnel or its quality of care. The Oklahoma State Department of Health is certified by Medicare as the parent agency for 51 sub-agencies located in county health departments throughout the state. The county health department provided care for 2,529 patients in 1978-1979 along with conducting generalized Public Health programs. The services provided include skilled nursing and at least one of the following services: speech therapy, physical therapy, social work, or the home health aide.

Some of the benefits of Home Health Care are that the patient can leave the hospital and be cared for at home. Most patients prefer the familiarity of their home environment to that



News From The Oklahoma State Department of Health

of an institution. The homebound patient and his family or the persons caring for him can be taught his care so that he may live in a relatively independent state. Early discharge to home care can reduce the cost of institution stays and decrease the need for additional capital construction money for inpatient facilities. Home care can help cut down on the need for admissions or readmissions to inpatient institutions.

Home Health Care staff can interpret medical orders, explain treatment regimes, offer reassurance and support. They can plan with the patient and family the routine day to day problems to help reduce the number of emergency situations that might arise, and help obtain any community resources the patient and/or family may need for optimum recovery. □

COMMUNICABLE DISEASES IN OKLAHOMA FOR AUGUST 1979

DISEASE	AUGUST	AUGUST	JULY	TOTAL TO DATE	
	1979	1978	1979	1979	1978
Amebiasis	—	1	2	10	20
Aseptic Meningitis	39	6	12	70	39
Brucellosis	1	—	—	2	3
Encephalitis, Infectious	5	2	2	18	13
Gonorrhea (Use form ODH-228)	1601	1253	1142	9021	8918
Hepatitis A	26	25	23	163	221
Hepatitis B	25	8	19	84	101
Hepatitis Unspecified	23	14	25	123	130
Measles (Rubeola)	—	—	—	22	12
Meningococcal Infections	2	—	2	25	15
Pertussis	2	1	2	7	9
Rabies (animal)	23	10	23	197	137
Rocky Mountain Spotted Fever	5	10	9	43	45
Rubella	—	—	—	22	11
Rubella (congenital)	—	—	—	—	—
Salmonellosis	56	43	58	235	178
Shigellosis	43	33	18	154	198
Shyphilis (Use Form ODH-228)	10	11	13	68	75
Tetanus	—	1	—	—	3
Tuberculosis	29	22	31	239	235
Tularemia	6	—	—	11	3
Typhoid Fever	—	—	—	—	2

Leebron Urges Congressmen Against Cost Containment Act

"There is no reason to establish an additional expensive federal bureaucracy for the purpose of controlling physician services and hospital costs," William M. Leebron, MD, president of the Oklahoma State Medical Association said.

The Elk City physician made this statement in a letter he addressed to Oklahoma's congressmen. He urged them to vote against the Hospital Cost Containment Act of 1979 because he said doctors and hospitals at the national and state levels have already demonstrated an effective voluntary effort toward lowering health care costs.

The Hospital Containment Act of 1979 would inflict federal controls on hospital expenditures if hospital increases exceed 9.7 percent per year. Oklahoma physicians consider this figure to be unrealistic because the national rate of inflation is several percentage points higher. Doctor Leebron pointed out in his letter to the congressmen that health care costs have declined in the last two years while other goods and services have risen.

The physician also explained to the congressmen that the rate of increase for hospital costs in Oklahoma has dropped from 17 percent in 1977 to 11.7 percent in 1978. This year the rate of increase is 12.8 percent. The two-year average of 12.25 percent is less than the goal of 12.6 percent.

Leebron also included figures unveiling success at the national level. The 15.6 percent increase in 1977 fell to 12.6 percent the following year. The rate of increase in 1979 is 12.7 percent. The two-year goal of 12.6 percent was nearly reached as the actual rate was a close 12.65 percent increase.

The OSMA president said health care professionals would probably be less effective in this current voluntary effort if they were threatened by federal regulations and that Oklahoma would be best served by a vote against this bill. □

FTC Staff Suggests Investigation

The Federal Trade Commission has proposed new recommendations for investigation into sensitive areas of the health industry.

The FTC has maintained an active history of investigations within the health industry since 1975 when the FTC interpreted a court decision as permission to seek anti-competitive practices by professionals.

Although the FTC does not probe non-profit organizations, the FTC staff is suggesting that the hospital industry be investigated in several areas. The growth of for-profit hospitals and hospital chains has caused the staff to question the availability of for-profit hospitals to less profitable patients. The staff also believes the competitive advantages between for-profit and non-profit hospitals under contract agreements with one another could be unfair. Finally, the FTC staff suggests the investigation of hospitals involved in shared services. The staff said the potential power of these entities could restrict competition among other hospitals and businesses that also furnish these services.

Many physicians discourage the independent practice of non-MD practitioners. The FTC staff has recommended that further investigation be made concerning the refusal of doctors to accept alternative providers for such services as rural clinics operated by nurse-practitioners.

The FTC has also requested an inquiry of state laws which restrict non-MD practitioners to a practice under the supervision of a physician and from prescribing drugs. The FTC also supports an investigation of the restrictions of payments to non-MD practitioners by private insurance plans and other third party payers.

Another area of investigation recommended by the FTC includes the development of model state legislation and working with consumer groups to provide the public with more information about physician and hospital cost and performances.

Prior to these recommendations the commis-

sion had taken the following action against areas within the health industry:

- Barred several state medical societies from helping with the development of relative value scales for medical procedures.
- Prohibited state bans on advertising by professionals who prescribe and fit eyeglasses.
- Barred a chain of hospitals in Pittsburgh from withholding admitting privileges from doctors who work for a local health maintenance organization.
- Barred the Indiana Dental Association from organizing a boycott against a prepaid dental care plan that had required patient X-rays to verify whether certain treatments were needed. The commission has also decided to take legal action against the Michigan State Medical Society, which boycotted a local Blue Shield plan for trying to impose certain cost control procedures. Also under consideration is a staff recommendation for FTC action to limit physician membership on Blue Shield boards. □

Doctor Says Stress Test Unreliable

In an article published in the September issue of the *Journal of the American Medical Association*, Richard J. Jones, MD, AMA director of Scientific Activities said although the stress test may have some value, he believes it is a poor predictor for heart disease among a healthy population.

"We can no longer expect this noninvasive test to provide a cost-effective, reliable measure for screening the asymptomatic population in a search for persons with coronary disease," the physician said. He said the test has disclosed too many false negatives for patients with a known coronary disease and too many false positives for healthy individuals. "Thus, the diagnostic value of this test, which is so expensive of physician time, seems to be more limited than has been widely supposed," he said. □

Kennedy Health Care Plan

The American Medical Association Board of Trustees has adopted a policy of opposing Sen. Edward Kennedy's (D-Mass.) national health insurance bill.

The senator introduced his proposal to the Human Resources Health Subcommittee in September. The bill, entitled "Health Care For All Americans Act," S 1720, contains the following major components:

- Federal administration and control through a National Health Board.
- Wide use of private insurance under close federal regulation.
- Negotiated fee schedules for physician reimbursement.
- Financing through a combination of payroll taxes, premiums, state and federal payments, Medicare taxes and general revenues.
- Medicare coverage for the elderly would continue and be upgraded.
- All employers would have to offer coverage for their employees; and
- Annual federal and state health budgets would be set to limit total health care expenditures. □

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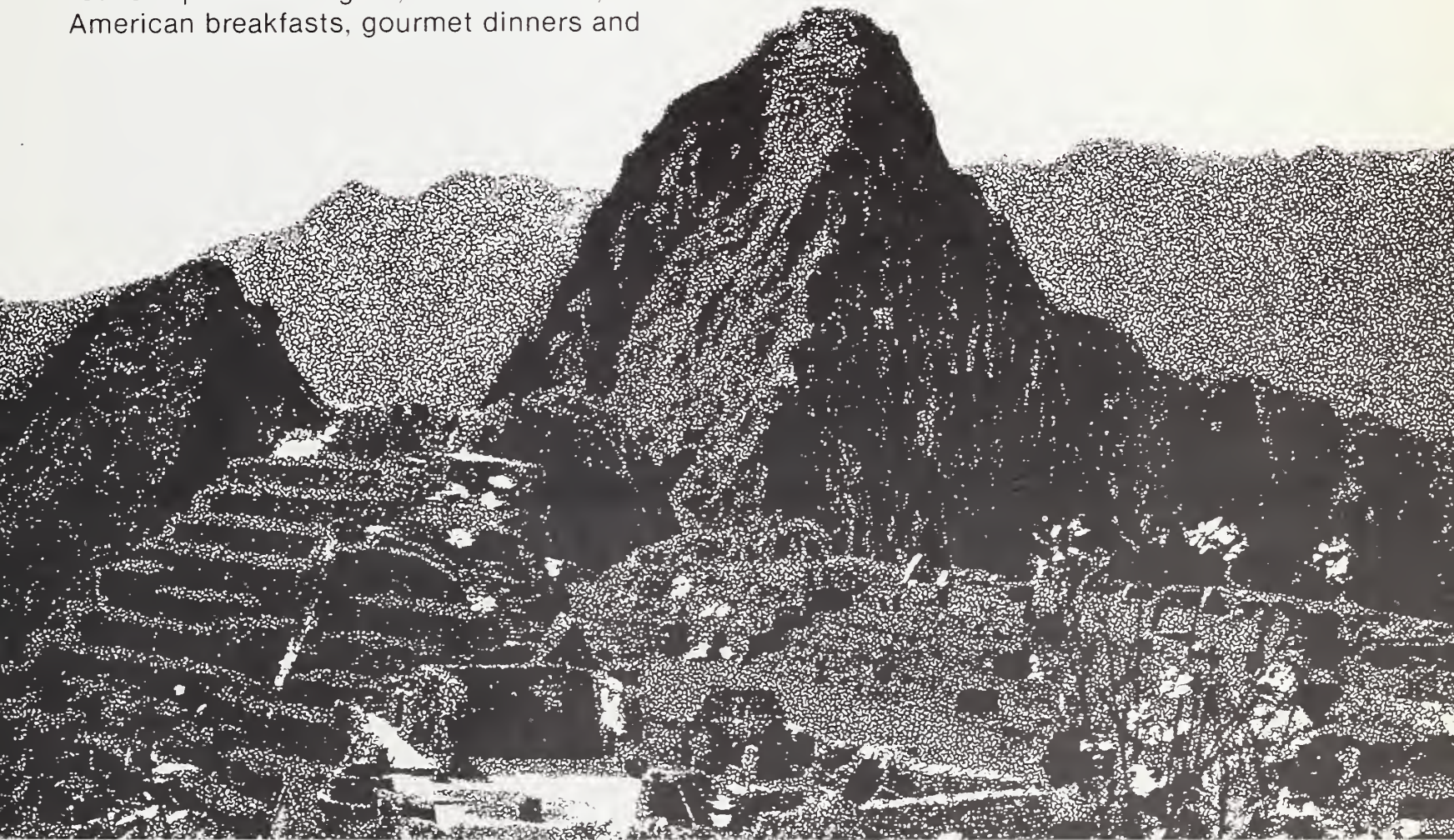
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Rural Physician Values Relationships

Among the long open miles and the scattered rural homes of Western Oklahoma, Ed Calhoon, MD, established a medical practice within his home county. The community is Beaver . . . a small and remote town in northwestern Oklahoma but no barrier to adventure. "I'm a man with a restless spirit and I'm always snooping into something," he said.

Many of the doctor's boyhood ventures taught him to value life. His inquisitive spirit as a youth often led him to involvement in the lives of others. One of those lives, an old-time cowpuncher, intrigued Calhoon with many stories.

"The mind of a child is very fertile," the doctor said. He spent many nights in the old man's home, a covered wagon, listening to his stories. As a boy, the doctor learned to value relationships with people. Eventually, Calhoon helped the old man build a new home . . . Oklahoma's last recorded sod house.

Calhoon's childhood days coincided with Oklahoma's early development. The physician said that history of the west is a first love. He values the lives of those people who made its history as well as their passing heritage. In fact, Calhoon's deep-rooted feeling for the land and its people prompted him to collect the saddles of pioneer cowboys. Today Calhoon has a collection which even officials of the Cowboy Hall of Fame have praised.

Calhoon's love for life includes all kinds of living forms . . . even the wild turkey.

"I think Ben Franklin said it best. The national bird should have been the wild turkey. The bald eagle is more majestic-looking, but the turkey is more resourceful and studier." A few years ago, Oklahoma's wild turkey was almost extinct. But the efforts of men like Calhoon and the Volunteer Wildlife Commission sheltered them on private land. Now the population is growing.

Calhoon credits his ability to make decisions early in life to responsibilities he accepted as a boy. "I was taught to take care of my horse before myself. This lesson has taught me to take care of my patients before myself."

Among those early decisions was his desire to become a physician. In 1951 he returned to Oklahoma's rural west to fulfill his promise to practice in a rural community if accepted into the state's school of medicine. Originally, he

had little desire to begin a practice in the area he knew as a youth. The people, however, requested his services because of their growing medical needs. When he first returned to the area it was without the idea of staying. But the physician's attitude changed into a life-long commitment when his involvement with the people grew deeper.

The future of these kinds of relationships, significant to the doctor throughout his life, is a great concern to Calhoon. He sees government moving in and taking over the practice of medicine. He said the trend toward a specialized world would help the medical specialist operate successfully under a government program. But he said the future of the rural physician will be difficult.

He said the trend of people is migration to sophisticated centers of medical practice. Since the evolution of transportation, the doctor crisis in small communities is not as significant as it was when he established his practice.

It's a smaller problem to get the critically injured and the ill to a major medical facility. I'm not being a pessimist about the future of a rural physician; I'm just being practical.

The conservative physician has been politically involved in the fight against government intervention in the practice of medicine. "Medical care will always be good as long as the free enterprise system continues. But government will undergrade and deteriorate the quality of the medical practice. It will kill the goose that laid a golden egg," he said.

"Government says health care is a right, I say they are wrong. It is no more a right than is transportation. No one has the right to demand my services; not government, not individuals, not anyone. But I'll give them to anybody." Like many physicians he has willfully extended charity to those within his own community unable to afford clothing, food and medical services.

"Physicians have always given freely of their services to those who need them. I suppose there are some renegade physicians, but I don't know any," the doctor said.

A few years ago, Dr Calhoon visited Europe to study England's government-controlled medical system. He says government ruins the sacred trust of caring for people. "It's a privilege for me to operate on somebody because they trust me enough to help them. Then in steps government."

Calhoon believes government health pro-



Ed L. Calhoon, MD

grams promote attitudes in patients that encourage them to get the most out of government and the physicians tend to take advantage of their pre-paid situation. "When patients cease to be grateful and I cease to be grateful for the privilege of serving them, the relationship is ruined," the physician said. Calhoon blames government for the destruction of doctor-patient relationships which he believes are significant to the quality of medical care.

As a humanitarian, Calhoon is concerned for the medical needs of the individual. But he is also concerned for the welfare of this country, and he does not believe in free medical care provided by the government. "Too many people who call themselves indigent, who really are not, have created this 'welfare mess' in America," he said. "The number of people who do not plan their lives is increasing, while the work ethic is diminishing. Government is promising to take care of these people. But the capable, work-oriented individuals cannot carry all of them," he said. "The America of yesteryear was not a bad America. Everybody had to paddle their own canoe. Necessity is the mother of invention," the physician said.

Calhoon also appreciates the famous quote of the late John F. Kennedy ". . . Ask not what your country can do for you—Ask what can you do for your country."

The western Oklahoma physician also says medical professionals have a responsibility for continuing the medical profession by perpetuating the medical interest of potential physicians and by maintaining the quality of medical care.

"I have a respect for the great medical profession handed to us by our forefathers. They taught professionalism, courtesy, ethics, charity and care for the poor, all of which is almost biblical. We are standing on the shoulders of great people. I hope we won't throw this responsibility and privilege away." □

Jogging Can Be Fatal

Throughout the day and even at night joggers are seen everywhere. For most of them this exercise will be beneficial, but it also can be fatal. Deaths during exercise are rare, but they do happen, says Paul D. Thompson, MD, of Brown University School of Medicine, Rhode Island.

An evaluation of reports on 18 individuals who died shortly after jogging, revealed that 13 men died of heart attacks while four men and one woman died of other causes including one fatality from heat stroke.

Only six of these people had symptoms of heart problems. All but four of them had exercised regularly for at least one year and nine for more than three years. Only two of these individuals had been exercising for less than one month.

Dr Thompson said his research team is convinced of the health benefits of regular exercise, but they are concerned about the extravagant claims made by exercise enthusiasts.

"With the explosive growth of jogging as a sport, there is an urgent need for definitive data on the risk-versus-benefit ratio of endurance exercise. Although the prevention of most exercise-related deaths depends on preventing coronary heart disease, and regular exercise may contribute to this goal, further studies are needed to identify those individuals who will profit from exercise training without excessive risk," the physician said. □

Seed Germinates in Youth's Eye

An eight-year old boy, the subject of an unusual medical case, has experienced the germination of a seed within his eye.

The youth returned home from school with a swollen left eye and no explanation for it. Eighteen months later he was brought to Solomon Abel, MD, eye specialist in Cape Town, South Africa.

Dr Abel discovered the shoot of a plant about one-eighth inch long growing just under the surface of the eyeball. He removed the seed and its sprout with microscopic surgery. The eye has healed without any permanent damage.

The eye specialist said conditions essential for the germination of seeds including moisture, warmth, fresh air, and protection from strong light are available within the eyeball.

Botanists examined the plant and reported it to be a seedling of a dicotyledonous plant of the Compositae family. But how the seed was embedded in the child's eye could not be determined. □

AMA Releases Placement Quarterly

The latest quarterly edition of the Physician Placement Register has been released to aid physicians seeking practice opportunities and to also assist those institutions, associations, communities and societies who are hunting doctors.

Condensed resumes for more than four thousand physicians are listed in this recent information source and are indexed according to specialty, type of practice, size of community and state preferences.

New to the Physician Placement Register is a section entitled "Placement Resources." This addition lists the formal and informal organizations involved in physician recruitment such as state medical, specialty societies, hospital and clinic management corporations, large medical facilities, executive and professional search firms and others.

For a copy of the current register and registration information write to:

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American Medical Association
535 North Dearborn Street
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Little Exercise No Risk for Heart Disease

Most doctors agree that exercise is important to the health of an individual, but according to the latest Farmingham Study, the lack of exercise is not a major cause of heart disease.

This study involved 1,919 men and 2,311 women who were evaluated for their level of activity and then observed for 14 years to discover how many suffered heart disease.

William B. Kannel, MD, of Boston University School of Medicine, said active men live longer than sedentary ones and have less heart disease, but the effect of being sedentary on the death rate is moderate for men when compared to other risk factors. He said this effect is remote for women.

"It has not yet been convincingly or consistently established that physical activity is an important determinant of the degree to which the major risk factors exist in the general population. In the Farmingham Study, the correlation between physical activity and the major risk factors of systolic blood pressure, serum cholesterol level, and cigarette consumption are very small," the physician said. □

Combination Approach to Hyperactivity

Drugs have been administered for the treatment of hyperactivity in boys for more than 40 years.

In a report, James H. Satterfield, MD, Hyperkinetic Children's Clinic, Gateways Hospital, Los Angeles, says results are much better when medication is supplemented with psychological treatment.

The physician has been conducting a study with a combination treatment approach by using medication and individual therapy. After one year he said changes in the children were apparent to teachers, physicians, parents and to the children themselves. They felt happier and related to their parents and other children much easier.

The doctor said hyperactive children are numerous. He said although medication has successfully helped to increase attention span, decrease impulsivity and reduce socially maladjusted behavior, drug therapy alone is very poor because these improvements are only temporary. □



The dedication ceremony of the Ben H. Nicholson Tower and Charles M. Bielstein Center was conducted in honor of the two late pediatricians on September 12.

A representative from the families of both physicians were featured as guest speakers. They presented a brief biography depicting the personal life of the man they represented. Gretchen Bielsstein Hunt spoke about her father, Charles M. Bielstein, MD. Representing Ben H. Nicholson, MD, was his son, John Nicholson, MD, Associate Professor of Pediatrics and Pathology, Columbia University of Physicians and Surgeons, New York City.

Following the dedication ceremony, a luncheon was held for both families and their guests. (Pictured above from left to right: Kurt Bielstein, Mrs. Ben H. Nicholson, John Nicholson, MD, and Gretchen Bielstein Hunt). □

1982 Goal To Eliminate Measles

"I think the elimination of indigenous measles in this country is indeed a realistic goal," says Julius B. Richmond, MD, US Surgeon General.

The physician believes this goal can be obtained by 1982. He said the levels of immunization among children in this country are high and that cases of measles have been declining for 15 years.

A federal report issued by the Center for Disease Control, Atlanta, also states that vaccinating every American child to stop the spread of this infection within the United States is a feasible goal. However, the report also emphasizes the need to maintain surveillance systems and immunization programs because of the importation of measles from foreign citizens. □

ERNEST LACHMAN, MD
1901-1979

Ernest Lachman, MD, Regents Professor Emeritus of Anatomical and Radiological Sciences, University of Oklahoma Health Sciences Center, died September 21. Corresponding Editor of *The Journal of the Oklahoma State Medical Association*, Dr Lachman was born in Germany and received his medical degree from the University of Breslau, Germany, in 1924.

Following postgraduate work in Berlin, Stockholm and Edinburgh, he came to the OU College of Medicine in 1934 where he was a member of the faculty and actively engaged in teaching anatomy and radiology for 45 years. He served as head of the Department of Anatomy from 1945-1967 when he became Regents Professor Emeritus.

Dr Lachman was a nationally acclaimed specialist in radiology research. Among his medical affiliations were the American Board of Radiology and the American College of Radiology. For his outstanding service to humanity and the medical profession Dr Lachman was presented a Life Membership in the OSMA in 1971.

His wife, Anna, died September 24, three days following Dr Lachman's death.

WALTER H. DERSCH, JR., MD
1921-1979

A well-known Shattuck, Oklahoma physician, Walter H. Dersch, Jr., MD, died August 26, 1979. Born in Oklahoma City, Dr Dersch was graduated from the University of Oklahoma College of Medicine in 1945. His practice of internal medicine was established in Shattuck in 1945. Following two years, 1946-48, in military service, he again returned to Shattuck where he remained for 28 years.

WILLIAM R. SCHMIEDING, PhD
1919-1979

An affiliate member of the OSMA, William R. Schmieding, PhD, Oklahoma City, died September 16, 1979. Dr Schmieding was chief, Laboratory Services of the Oklahoma State Department of Health. He received his PhD degree from the University of Oklahoma Medical Center in 1966, where he was part-time associate professor of the Department of Medical Microbiology and Immunology and Laboratory Practice, School of Health. □

One or the Other—But Not Both!

The combination of oral contraceptives and cigarette smoking by women will increase their potential for developing vascular disease and having strokes according to a recent study conducted by the Kaiser-Permanente Contraceptive Drug Research Team, Walnut Creek, California and the Center for Disease Control, Atlanta.

Researchers studied these effects in approximately 16,000 women for more than six years. The risk of heart attack, brain hemorrhage, other strokes and blood clots in the veins increased in those women who smoked and used oral contraceptives simultaneously. Use of oral contraceptives only slightly increased the risk of brain hemorrhage and blood clots in non-smoking women.

The study also revealed that high blood pres-

sure, high cholesterol, obesity, gallbladder disease and nondrinking of alcohol created a greater risk factor for a heart attack, but that only high blood pressure and high cholesterol were associated with the increased risk of having a stroke.

A Relative Risk Scale was designed by the research team to measure the effect of smoking to health. The device indicated that smokers have a relative risk of 2.9 for heart attacks, 5.7 for brain hemorrhage, 4.8 for other strokes and 3.9 for blood clots. The relative risk factor for smoking women using oral contraceptives climbed to 21.9.

"Smoking should be considered a contraindication to oral contraceptive use, or at the very least, women wishing to use oral contraceptives should be strongly urged not to smoke," says Savitri Ramcharan, MD, research member of the Contraceptive Drug Study. □

Questions and Answers on CME Requirements

1. What is the continuing medical education requirement?

In 1976 the House of Delegates of the Oklahoma State Medical Association voted that on January 1, 1981, each member of the Oklahoma State Medical Association must have an active American Medical Association Physician's Recognition Award.

2. What is the Physician's Recognition Award?

The Physician's Recognition award is the American Medical Association's continuing medical education award and is based on a three-year cycle. In order to qualify a physician must accumulate 150 credit hours of continuing medical education within a three-year period, of which 60 must be in Category I. The remaining 90 hours may be in Category I also, or in any combination of categories within the credit hour limitations specified for each category. It is not necessary to have credits in all categories.

3. What is Category I CME?

Category I is any formal educational program that "covers a subject in the scope and depth appropriate for the intended audience, and it must be planned, administered and evaluated in terms of educational objectives that define a level of knowledge or specific skills to be obtained."

4. How are Category I programs identified?

Category I educational programs are designated as such by an organization or institution that has been accredited for CME by the AMA Committee on Accreditation or the National Liaison Committee on Continuing Medical Education. All Category I CME programs are properly identified as such by the approved sponsoring organization.

5. Are any Oklahoma institutions or organizations accredited for CME?

Yes. The University of Oklahoma Medical

Center is accredited by the AMA for continuing medical education. In addition, as of January 1, 1979, the following institutions have been surveyed by the Oklahoma State Medical Association and on recommendation of the Council on Medical Education, accredited by the LCCME: Hillcrest Medical Center/Tulsa; St Anthony Hospital/Oklahoma City; St John Medical Center/Tulsa; Baptist Medical Center/Oklahoma City; South Community Hospital/Oklahoma City; and St Francis Hospital/Tulsa.

6. Will CME certificates from other specialty organizations be accepted as evidence of completing the OSMA requirement?

Yes and no. The specialty organization award alone will not suffice. However, the AMA will accept, by reciprocity, the CME certificates from the following organizations: American Academy of Family Practice, American Academy of Dermatology, American College of Emergency Physicians, and the American College of Obstetricians and Gynecologists. By filling out the AMA-PRA application form and marking the appropriate space, the AMA will accept the specialty organization's award and issue the PRA, which meets the OSMA requirement.

7. When, where and how do physicians apply for the AMA-PRA?

Each year the AMA mails the PRA information and an application blank to each AMA member. When the physician has successfully completed 150 hours of CME, he fills out the application and mails it directly to the AMA. **DO NOT SEND TO OSMA.** The application should be received by the AMA no later than the time it would take to allow it to be reviewed and the award received by the physician on January 1, 1981.

8. How often do physicians have to qualify the CME requirement?

The OSMA requirement is ongoing and it

requires that the physician re-apply for the PRA every three years.

9. Are any physicians exempted from the CME requirement?

Yes. Only those physicians who are not using their professional status in **ANY** capacity.

10. How can a physician be exempted?

He must request exemption in writing addressed to the OSMA Board of Trustees. After a thorough examination of the situation and facts, the board will make their final decision. Each decision is handled on an individual basis.

11. If a physician does not comply with the CME requirement, what happens?

The physician is placed on a probation status for one year during which time he must meet the requirement. If at the end of the probationary extension, he has not met the re-

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Medical Professionals Give Time To Free Medical Clinic

"Many people refer to this section of town as a bad area, but it is full of gentle and loving people who are trapped," William Hale, MD, Oklahoma City said.

Dr Hale, a full-time physician said he examines approximately 80 people per day during his regular office hours. But he and other volunteers also extend their talents as a free service for people unable to afford health care.

The service center, located at 2125 Exchange, Oklahoma City, is a Baptist Mission Center and offers a variety of other free services such as dental care, clothing, food, preschool, church and other miscellaneous activities. However, the contributing medical staff workers including approximately 14 in-house physicians and 35 nurses belong to a variety of denominations and other backgrounds.

"Sometimes I get tired of the derogatory remarks made about a physician's income and it does my heart good to see people in the medical profession donating their time for free, and loving all of it," Hale said.

Reverend Ed Onley, director of the Church Community Ministries, initiated the development of a free medical clinic in Little Rock, Arkansas, before accepting his current position in 1973. He said the purpose of this mission is to provide services for the whole individual by meeting physical, emotional and spiritual needs. The mission did not include a medical service when Onley moved to Oklahoma. But he said the need was apparent. The CCM director said he saw sick children attending the preschool and he learned from the state health department that his mission was centered in one of three Oklahoma City areas populated with people suffering from lack of medical attention.

The mission has maintained a policy not to accept state or federal funds for the provided services. Onley said the Oklahoma Hospitality Club is a consistent financial contributor to the mission and the Capital Baptist Association sponsors this mission by providing a building, utilities, office and office staff. The director said the services of the mission are funded by



William Hale, MD

faith. His endeavor to begin a medical service was no exception. Limited financial resources and no knowledge of who could organize this medical clinic did not hinder the immediate development of the needed assistance.

Another local pastor told Onley that within his congregation was a physician suffering from multiple sclerosis. The doctor could work only three or four hours per day at that time. He and his wife, also afflicted with this same disease, were quickly introduced to the mission director to discuss the director's desire to provide a medical clinic for needy people. The couple agreed to help with its organization: They were Dr and Mrs Hale.

The physician said that he and his wife had developed a similar desire just one year earlier. Hale contacted other physicians to aid with this service, while his wife, Sandy, also a Registered Nurse, called other nurses for their assistance.



Reverend Ed Onley

"I felt discouraged after the first seven or eight rejections. Then I realized the problem. I was trying to do everything by myself instead of letting God take control, so I asked the Lord for help. The next eight doctors whom I called agreed to volunteer some time," Hale said. In one day a nucleus of medical volunteers had been formed.

In addition to these eight physicians, 18 nurses joined the team. Medical equipment was also donated to the mission and within 30 days after the Hales and Onley met, this envisioned medical clinic opened.

The staff at this clinic has continued to mushroom. More than 50 medical professionals and several other volunteers donate their time each month to this service in addition to working at their regular jobs.

Dr Hale said that with his wife they contribute approximately 30 hours per month at the medical clinic. Since his involvement with the mission, he too has grown stronger. "I see 80 people per day in my office as well as being involved in other activities. I have lost some muscle control, but I have no disability. Both my wife and I feel so blessed that we can be functional enough to work for the clinic. We do it because of our deep feeling for Jesus Christ. We get much more out of it than what we put into it," the physician said.

The other medical staff workers contribute at least five hours each month. Two physicians and two nurses conduct the medical services on a monthly rotating basis. This facility is open from 7:00 PM until 10:00 PM once a week during the summer and twice a week through the winter.

Onley said he has noticed an interesting phenomenon in the lives of the staff people. "I see people who have worked for eight or nine hours through the day and are tired when they come to the mission. I know the Holy Spirit must energize them because they are usually laughing and singing and really enjoying themselves before they leave," he said.

Hale said the clinic offers top medical care. "Our people care about people. If anyone does come for their own profit they usually don't last long. Our people volunteer because of their love for mankind and Jesus Christ. It does my heart good to do this work. It makes me feel good," he said. The physician also said if the medical staff discovers a case that cannot be sufficiently treated at the free clinic this patient is referred to outside doctors. He said about 20 other physicians from almost every medical field have agreed to treat referrals in their office without charge.

The growth of the staff at the clinic has conveniently coincided with the growing number of patients. Hale said precise organization of the medical service is a must. He also said the two physicians on duty examine an average of 40 people within a three hour period of time.

Medical opportunities at the mission are also increasing.

Part of the kitchen has been converted into a laboratory. Large inner closets now serve as a pharmacy and storage for boxes of medication. Hale said total medical assistance is necessary for the patients if the present medical effort is going to be effective. Onley said they realized the need to issue free medication when he and Dr Hale found a wadded piece of paper outside the clinic on the sidewalk. "It was a prescription. We decided that this patient couldn't even afford the medication prescribed for him," he said.

Pharmaceutical companies have contributed some drugs to the mission's free medication service, but Onley said most of the financial

contributions to the mission are spent to buy injectable medication and other drugs. "The amount of purchased medication is increasing and at the present time the mission buys about \$600 worth of medication each month," he said. Hale said this medication is distributed under strict supervision and that no barbiturates, narcotics or amphetamines are included within the mission's pharmacy.

An increasing number of patients coming through the medical clinic have opened the eyes of staff workers to further needs of these people. Other services have been added to the mission to further enhance the total medical assistance of local needy citizens. Mercy and Deaconess hospitals have each donated two rooms per month and complete hospital care to the mission's patients who need hospitalization. The most recent addition has been a service for free dental care. Dr Tom Dudley agreed to direct this service in addition to his regular practice and he too volunteers approximately 30 hours per month. Contributions have also supplied this free assistance with top quality dental equipment. □

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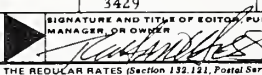
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ERNEST LACHMAN
1901-1979

The Department of Anatomical Sciences, the College of Medicine and the Health Sciences Center of the University of Oklahoma have suffered a grievous loss in the death of Ernest Lachman, MD, Regents Professor Emeritus of Anatomical and Radiological Sciences.

Doctor Lachman was born in Glogau, Germany, in 1901, and earned an MD degree at the University of Breslau, Germany, in 1925. He did his internship and residency at the Rudolf Virchow Hospital, Berlin, and became Assistant Chief in Radiology in 1930. He left Germany in 1933 and spent one year in anatomical and clinical studies at the Royal College of Physicians and Surgeons, Edinburgh, Scotland. He came to the United States in 1934 when he was appointed Assistant Professor of Anatomy, University of Oklahoma School of Medicine. He was promoted to Associate Professor of Anatomy in 1939, and to Professor and Chairman of the Anatomy Department in 1945, as well as Consultant Professor of Radiology. He held the Chair for 23 years until 1968 to become Regents Professor of Anatomy and Radiology. He was honored as Regents Professor Emeritus of Anatomical and Radiological Sciences, and Senior Scholar at the University of Oklahoma Health Sciences Center in 1971, and Adjunct Professor Emeritus and Medical Director-Advisor of Radiography in 1979. He died at his home in Oklahoma City on September 21, 1979.



Ernest Lachman, MD

Doctor Lachman was a member of the American Association of Anatomists, American College of Radiology, American Medical Association, American Association of Physical Anthropologists, Society for Experimental Biology and Medicine, and Oklahoma County and State Medical Associations (Life Member). He was an honorary member of both Phi Beta Pi and Alpha Omega Alpha, and a member of the Oklahoma Hall of Fame.

Doctor Lachman never retired from teaching, or from writing. He gave a lecture on Introduction of Radiology to the first year medical students (his 45th class) just one week before his death. His teaching provided more than medical knowledge because he introduced

editorial

philosophy and humanity into his didactic instructions, and he lived by the standards he professed. He was loved and respected by a multitude of students. In July of 1978 he received a telegram in appreciation of his merits, recognizing him as the "Most Outstanding Professor Encountered in Their Medical Careers" from the members of the Class of 1953 when they held their 25th reunion in Las Vegas, Nevada.

Doctor Lachman published over 130 scientific and educational articles. He was a Co-Editor of *Biological Abstracts*, Consultant Editor for *The New Physician*, Section Editor of *Morris' Human Anatomy*, 11th and 12th editions, Corresponding Editor of the *Journal of the Oklahoma State Medical Association*,

Member of the Editorial Board of the *Bulletin of the Oklahoma County Medical Society*, Co-Author of *Principles in Human Anatomy* and Diplomate of the American Board of Radiology. He was the author of *Case Studies in Anatomy* and was working on the third edition at the time of his death. Dr Lachman enjoyed medical education and writing throughout his life and turned down many attractive opportunities to enter the private practice of radiology.

Doctor Lachman was survived by his wife, Anna, but sadly she died three days after his death. All those who had the privilege of being his students, his many colleagues and friends, witness that he was a great educator and an exceptional human being.

Joseph C. Lee, MD



During this special holiday season each of us has an opportunity to reflect upon our lives and to give thanks for our many blessings. Each of you deserves a special expression of appreciation for all that you have done for our Association during the past year. You have helped to make my first seven months as OSMA president a rewarding experience.

My very special thanks go out to each of you with wishes for a very Merry Christmas.

Wm. M. Leebron, M.D.

Antibiotic-Associated Colitis Treated With Oral Vancomycin

"Unreliability of the Stool Gram Stain"

HANNA A. SAADAH, MD¹
PAUL E. ESAKI, MD²

Three cases of antibiotic-associated colitis (AAC) which had gram positive cocci as the predominant stool flora were treated with oral vancomycin. Although Staphylococcus aureus was not isolated from the stools, all three patients promptly responded to therapy. Staphylococcal enterocolitis (SEC) should not be diagnosed by the stool gram stain alone, and there is considerable doubt that such a disease entity occurs in adults today.

INTRODUCTION

One of the serious complications of antibiotic therapy is antibiotic-associated colitis (AAC).¹ With very few exceptions, most of the commonly used antibiotics have been implicated.

Recently the etiology of AAC has become better understood. Studies indicate that under the influence of certain antibiotics the colonic flora is changed allowing *Clostridium difficile* to proliferate and elaborate cytotoxic sub-

stances which in turn cause the colitis.²⁻⁵ While resistant to most antibiotics, *C. difficile* is sensitive to vancomycin (minimum inhibitory concentration equals 4 µg/ml).¹ Vancomycin given orally is poorly absorbed and attains high concentrations in the stools (3100 µg/g of stool).⁵ Oral vancomycin is the accepted therapy for staphylococcal enterocolitis (SEC)⁶ and has recently been successfully used to treat eleven patients with AAC.^{5, 7, 8} We report three patients with AAC inadvertently treated with oral vancomycin for a presumed SEC.

CASE REPORT

1. A 20-year-old man was admitted on 29 August 1975 with fever, abdominal pain, and diarrhea. His diarrhea started two weeks earlier when he was treated with penicillin, cleocin, erythromycin, tetracycline, and cefazolin for tonsilitis. He appeared toxic, dehydrated, with an oral temperature of 39°C and diffuse abdominal tenderness. Proctosigmoidoscopy revealed extensive pseudomembranous colitis confirmed by biopsy. Stool gram stain revealed a large number of neutrophils and gram positive cocci suggesting SEC. He was treated with oral vancomycin, 500 mgs every six hours, and showed prompt improvement. On the fourth day repeat proctosigmoidoscopy showed dramatic resolution of the

From the Departments of Infectious Diseases¹ and Family Medicine² Mercy Health Center and The University of Oklahoma Health Sciences Center, Oklahoma City, Oklahoma.

pseudomembranous colitis. Stool cultures on Mannitol-Salt Agar and routine media did not grow *Staphylococcus* or other enteric pathogens.

2. A 43-year-old woman was seen in the office on 8 September 1977 and was treated with oral ampicillin for a vaginal discharge. Five days later she developed a bloody diarrhea and had a diffusely tender abdomen. Stool gram stain revealed a large number of neutrophils and gram positive cocci suggesting SEC. Proctosigmoidoscopy was refused. She was treated with oral vancomycin and quickly became asymptomatic. The stool cultures were reported negative.

3. A 91-year-old female was admitted on 2 July 1978 with bloody diarrhea. She was treated with oral carbenicillin for a urinary tract infection three weeks earlier. Her oral temperature was 38°C and the abdomen was diffusely tender. Proctosigmoidoscopy revealed severe pseudomembranous colitis confirmed by biopsy. Stool gram stain revealed a large number of neutrophils and gram positive cocci suggesting SEC. She was treated with oral vancomycin and quickly became asymptomatic. The stool cultures were reported negative.

DISCUSSION

Stool gram stains were misleading because all three patients had gram positive cocci as the predominant stool flora. This suggested SEC and led us to start vancomycin therapy as recommended.⁶ However, when *Staphylococcus aureus* was not isolated on Mannitol-Salt Agar from any of the stools, we retrospectively diag-

nosed AAC. We were unable to explain the dramatic response to therapy until recently when the data regarding *C. difficile* began to appear. SEC, therefore, should not be diagnosed by the gram stain alone contrary to what has been implied by others.^{6, 9}

Since Koch's postulates have not been fulfilled and because published reports of SEC virtually disappeared after 1966, there is doubt as to whether SEC represents a true disease entity in adults today.¹⁰ Perhaps some of the cases previously reported as SEC may have actually represented AAC with simple overgrowth of *Staphylococcus aureus* in the stools. It is interesting that ten of the 109 cases of SEC reported by Khan and Hall were diagnosed on the basis of the stool gram stain alone. All 109 patients developed colitis three to nine days after antibiotic therapy. Pathologic examination of the nine patients who died revealed pseudomembranous colitis in four and ulcerative colitis in three. Their response to oral vancomycin was prompt. While 11 of the 64 patients died without vancomycin therapy, none of 45 patients died when vancomycin was used. Staphylococcal bacteremia occurred only in those patients who had either staphylococcal wound sepsis or staphylococcal pneumonia.⁶ The similarities between AAC and SEC are obvious. In view of our experience, it is possible that Khan, Hall, and others may have successfully treated cases of AAC with oral vancomycin while under the impression that they were treating SEC.⁶ □

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Hanna A. Saadah, MD, Mercy Health Center, 705 Mercy Doctors Tower, Oklahoma City, Oklahoma 73120.

Hanna A. Saadah, MD, was born in Lebanon (1946), received his MD degree from the American University of Beirut (1970), did his postgraduate training at the University of Oklahoma then spent two years on the faculty as an assistant professor of medicine. He is board certified in both internal medicine and infectious diseases and is currently in private practice in Oklahoma City.

Paul E. Esaki, MD, was born in Hawaii in 1950. He received his medical school training at the University of Hawaii graduating in 1976. He came to Oklahoma where he specialized in family medicine and is currently practicing in Hawaii.

Relapsing Fever

CASE REPORTS

JOHN A. MOHR, MD
CHRISTOS DIMAS, Major, USAF MC
DANIEL WASHBURN, MD

Relapsing fever is caused by spirochetes which are transmitted by soft ticks that bite painlessly, briefly and usually at night, and even though recovery is the rule, relapsing fever may be fatal.

Relapsing fever, an infectious disease, is caused by spirochetes of the genus *Borrelia*. It was first recognized in the United States in 1844, but is now diagnosed infrequently. The disease has been reported from most parts of the world including the western states of the United States.¹ During epidemic situations, the organisms are usually acquired from lice, *Pediculus humanis*, but in this country, the endemic form (tick borne) is far more common. The usual tick vectors feed on rodents and are then carried into buildings which may serve as common points of contact with man. The spirochetes may even be passed from the tick to its offspring.²

Two people working in such a tick-infested building in Oklahoma became incidentally involved in the epidemiological cycle of the organism and acquired relapsing fever.

Patient I

A 27-year-old slaughter house employee was referred to The University of Oklahoma Health Sciences Center in July, 1978, following the sudden onset of temperature elevation, (105°F) severe headache, nausea and vomiting, anorexia, myalgias (especially ocular), splenomegaly and a probable diagnosis of relapsing fever. Additional history revealed that the patient worked in a wood-frame shop at his home on weekends and evenings. It was further stated that the shop was rat-and-mice-infested during the spring and early summer. The patient had no knowledge of tick exposure.

Physical examination revealed a well-developed male in acute distress with beads of sweat oozing down his forehead and face. The blood pressure was 100/60 mm Hg, pulse 120 per minute, respiratory rate of 16 per minute, and a temperature of 105°F. The remainder of the findings were unremarkable except for generalized muscle tenderness and a spleen palpated three centimeters below the left costal margin. Laboratory evaluation revealed negative cultures of blood and urine, normal hemoglobin and white blood cell count, negative serologic tests for syphilis, leptospirosis, tularemia and brucellosis. Thick blood smears stained with Wright's stain revealed large, loosely-coiled spirochetes of the genus *Borrelia*. (Fig 1) Treatment was initiated with

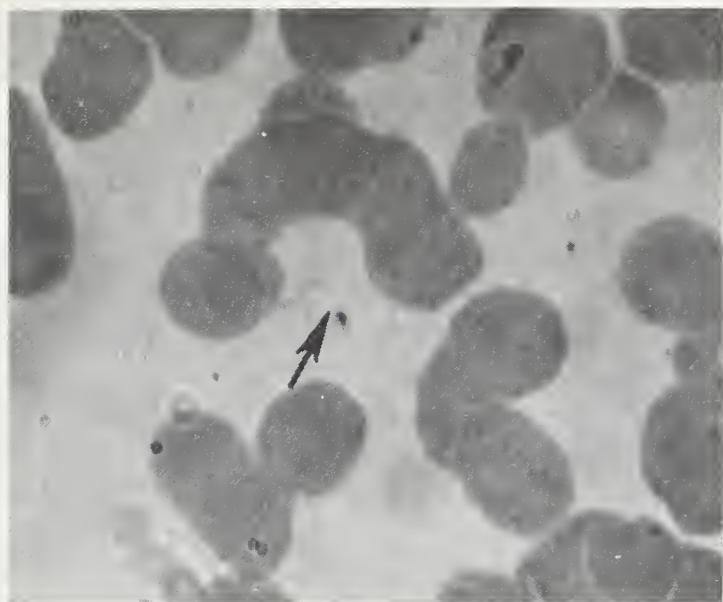


FIGURE I
Thick blood smear from patient I.
Spirochete at arrow point

peroral tetracycline, 500 mg every six hours. Within 24 hours, the patient improved dramatically, except for moderate weakness which progressively improved and he returned to work without any further difficulties.

Ticks belonging to the genus *Ornithodoros* were recovered from the wood-frame shop. However, these were not identified as *Ornithodoros hermsi* or *O. turicata*, the two vector species known to be present in Oklahoma.

Patient II

A 67-year-old slaughter house worker (the neighbor of Patient I who worked with his neighbor evenings and weekends in the wood-frame shop) presented to another hospital in July, 1978, with sudden onset of severe headache, fever to 106°F, shaking chills, generalized musculoskeletal pain and nausea. He was hospitalized and treated with peroral tetracycline, two grams per day. Hospital records reveal that the patient was afebrile after 48 hours and was discharged. He was advised to take tetracycline, two grams per day for the subsequent eight days. The patient denies relapses; but states that generalized weakness persisted for three weeks.

Laboratory studies included hemoglobin, hematocrit, white blood cell count, and chest roentgenogram, all of which were normal. Serologic tests for brucellosis and tularemia were negative. Additional history revealed that the patient removed soft ticks from his body both at work in the slaughter house and at home after working in the wood-frame shop.

Thick blood smears were not obtained from this patient. Serologic testing for *Borrelia* was not available from the Center for Disease Control, Atlanta, Georgia. Because of the clinical course, tick exposure, response to therapy, and association with case I, the diagnosis of relapsing fever appears very likely.

DISCUSSION

The usual manifestations of relapsing fever are nonspecific and somewhat variable and have been summarized in several series.³⁻⁵ The manifestations are very similar to those described for the first (reported) recognized cases in this country by Clymer in 1844. He concluded that the disease was brought to Philadelphia in June, 1844, by Irish immigrants arriving on a Liverpool packet. He described the illness as a form of continued fever similar to the fever described in Scotland and England in the previous year (the place and year the disease was called relapsing fever by Craigie and Henderson). It was characterized by the sudden onset of severe headache, vomiting, muscle and joint pains, rapid pulse, high temperature, occasional epistaxis, enlarged spleen, great debility and a toxemia similar to the toxemia of malaria.⁶ Relapses occurred in all untreated cases. The clinical manifestations of the disease were reviewed more than 100 years later, and the only significant additional observations included manifestations of

John A. Mohr, MD, was graduated from the University of Oklahoma College of Medicine and is certified by the American Board of Internal Medicine. He is Acting Chief of Staff of the Veterans Administration Medical Center in Oklahoma City. He is a member of the American Federation for Clinical Research, the American Society for Microbiology, the American Thoracic Society and the American Association for University Professors.

Christos Dimas, Major, USAF MC, was graduated from the University of Athens, Athens Medical School in 1970. He is with the US Air Force Medical Corp.

A graduate of the University of Oklahoma College of Medicine, Daniel Washburn, MD, limits his practice to his specialty, internal medicine. He is a Fellow in Endocrinology and an Associate in the American College of Physicians.

central nervous system involvement in 30 per cent and a mortality of 3.5 to 4.0 per cent in the treated cases. The diagnosis was usually made on epidemiologic grounds or in retrospect, having observed the characteristic fever curve and the periodic relapses. The usual bacteriological culture techniques are not helpful since the organisms do not grow in routine culture media. A definitive diagnosis is most commonly made after finding the large spiral *Borrelia* in thick blood smears stained with Giemsa's stain or other routine stains. (Figure I as seen in patient I, Wright's stain.) The prevalence of positive smears varies in different reports, but in those reports where smears were done, one can expect 75-80 per cent to be positive. Additional cases may be identified by inoculating patient blood into experimental animals and observing them for infections. Other laboratory tests are variable and less helpful. Specific serologic tests are of little value early in the course of the disease and are not readily available. In about four per cent of cases, a false positive test for syphilis occurs. The white blood cell count and differential are nonspecific and variable.

The soft ticks, *Ornithodoros*, that transmit relapsing fever may be erroneously referred to as bedbugs because their bite is often painless, brief and usually inflicted at night. Thus, the patient may not recognize that he has been bitten by a tick. Soft ticks were recovered from the home work area of these patients. Smears for *Borrelia* from these ticks did not demonstrate the spirochete, and animal inoculations were not carried out.

Even though recovery is the rule, relapsing fever may be fatal and rarely, it may be complicated by iritis, iridocyclitis, and even neuropsychiatric, hemorrhagic and cardiorespiratory problems.^{4, 5}

Immunity in relapsing fever is not well understood. During host infections, the *Borrelia* undergo cyclic antigenic changes which are called phase variations. Additional characteristics which impede the study of the immunology of relapsing fever include the one-sided immunity reported by Geigy and Burgdorfer.^{7, 8} One-sided immunity is observed when infection with one strain protects ani-

mals against infection with another strain but not vice versa. Wide antigenic diversity of *Borrelia* strains isolated in the same geographic area has also been observed.⁹ During clinical infection, the immobilization and subsequent lysis of the *Borrelia* by antibodies mark the crisis of the febrile attack.¹⁰ During this process, new antigenic determinants may be unmasked causing the emergence of a new phase variant of the infective agent and hence, a relapse. Eventually, the host will develop antibodies which react with most or all phase variants of that particular isolate and relapses cease to occur.¹¹

The treatment of relapsing fever has included the use of arsenicals, sulfonamides and antibiotics. It appears that the penicillins, chloramphenicol, tetracyclines and streptomycin are effective in terminating the disease and preventing relapses. At the present time, tetracycline appears to be the drug of choice (500 mg peroral every six hours for 5-10 days) but other drugs, penicillin or erythromycin may be used especially in children and pregnant women.

Prevention of relapsing fever is accomplished primarily by avoiding exposure to the arthropod vector, using protective clothing and perhaps insect repellents. Elimination of the *Ornithodoros* tick is practically impossible because of its ability to survive in inaccessible areas. □

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John A. Mohr, MD, VA Medical Center, 921 N.E. 13th Street, Oklahoma City, Oklahoma 73104.

Decreased Platelet Aggregation Following Marihuana Smoking in Man

CARL F. SCHAEFER, PhD
DANIEL J. BRACKETT
C. G. GUNN, MD
KURT M. DUBOWSKI, PhD

Blood coaguability in man may be impaired following marihuana smoking due to a reduction in the aggregability of the blood platelets.

Marihuana-induced alterations in the blood clotting mechanism of man have been noted several times over the past decade. In 1968, Henderson and Pugsley¹ suggested that marihuana may have caused intravascular coagulation in a patient who had injected hashish intravenously and exhibited a number of symptoms including a low platelet count. King, *et al*² also found low platelet counts in four patients following IV marihuana injections, but their clotting factor assays did not confirm the occurrence of intravascular coagulation. A more direct demonstration of this effect was later provided by Levy and Livne³ when they showed that marihuana components added directly to human blood samples markedly reduced the platelet count.

All of the above results occurred following the direct introduction of marihuana into the blood, which is rather atypical of marihuana

usage since marihuana is normally smoked, not injected. Therefore, we conducted a pilot study to determine whether changes in platelet number and/or aggregability could be detected following exposure to marihuana via the common route (smoking).

The subjects were eight healthy male volunteers who were previous users of marihuana. Our study was conducted in full conformity with the federal standards and regulations for drug research using human subjects. On the three days preceding the platelet study, the subjects had smoked one marihuana cigarette per day (total dose of 30 mg of delta-9-tetrahydrocannabinol (THC) in a psychophysiological study.⁴

On the day of the platelet study each subject fasted for 11 hours and then smoked a marihuana cigarette containing 20 mg of THC. Blood samples were collected 30 minutes prior to smoking and 90 minutes after smoking. The methods of blood handling and treatment have been described fully elsewhere.⁵ Ten milliliters of blood were drawn into a plastic syringe and immediately transferred into a siliconized glass tube containing sodium citrate (1:9 ratio). Platelet rich plasma (PRP) was obtained by centrifuging the blood at 825 g. for 12 minutes. Aliquots (0.4 ml) of PRP were placed in three cuvettes which were kept at room temperature (23° C) until use. Each cuvette was placed in a Chronolog 300 platelet aggregometer to be challenged with one of three doses of ADP (0.25 μ g, 0.5 μ g, or 1.0 μ g ADP in 0.1 ml normal saline). The resulting platelet aggregation responses to ADP were recorded for five minutes and quantified by integration of the area under the curve using a Wang 600 programmable calculator. Platelet counts were

From the Departments of Anesthesiology and Medicine, University of Oklahoma Health Sciences Center and the Veterans Administration Medical Center, P.O. Box 26901, Oklahoma City, Oklahoma 73190. Supported in part by Insurance Institute for Highway Safety Project No. 6538 and National Institutes of Health Grant No. 05351.

Table 1. Mean platelet counts and platelet aggregation responses (\pm SEM) before and after smoking a 20 mg THC dose of marihuana.

	Before	After	<i>t</i> value
Platelet counts (per μ l)			
Whole blood	$26.2 \pm 2.2 \times 10^4$	$27.3 \pm 2.7 \times 10^4$	0.96
Platelet-rich plasma	$62.0 \pm 9.2 \times 10^4$	$63.2 \pm 8.5 \times 10^4$	0.34
Platelet aggregation (area under curve, sq. mm)			
0.25 μ g ADP	$38.6 \pm 8.2 \times 10^3$	$27.0 \pm 5.9 \times 10^3$	1.24
0.50 μ g ADP	$66.9 \pm 3.0 \times 10^3$	$54.4 \pm 7.7 \times 10^3$	2.16*
1.00 μ g ADP	$77.8 \pm 2.3 \times 10^3$	$71.9 \pm 3.2 \times 10^3$	2.18*

* $p < .05$

made according to the phase contrast method of Brecher and Cronkite.⁶

Smoking 20 mg THC dose produced pronounced psychological (subjects rated themselves as very high) and physiological (heart rates increased an average of 60%) effects in the subjects, as expected. However, marihuana smoking had no effect on platelet counts either in whole blood or in PRP. (Table 1) Nonetheless, analysis of variance revealed a significant ($p < .05$) decrease in platelet aggregation following marihuana smoking in addition to the expected increase ($p < .01$) in aggregation with increasing doses of ADP. Individual comparisons by paired *t*-tests (Table 1) indicated that the decrease in aggregation following marihuana smoking was significant when the

response was induced by the 0.5 and 1.0 μ g doses of ADP, but not by the 0.25 μ g ADP dose.

These aggregation data are compatible with results of a recent study⁷ of human PRP incubated with THC. In that study, Levy, *et al*⁷ found ADP-induced aggregation to be markedly inhibited after *in vitro* exposure of the human platelets to THC. We found the same result following the *in vivo* (marihuana smoking) exposure of the blood platelets to THC.

In summary, marihuana smoking had no effect on platelet numbers in contrast to previous reports^{1, 2} in which marihuana had been injected intravenously. However, platelet aggregability was significantly reduced following marihuana smoking, and further work is needed to assess the clinical significance of this result.

ACKNOWLEDGEMENTS

Grateful appreciation is expressed to the National Institute on Drug Abuse for providing the marihuana cigarettes. We also acknowledge the valuable assistance of Natalie Essary, Barbara Blouin, Mary Ellen Grady and the College of Medicine's Word Processing Center.

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Carl F. Schaefer, Ph.D., Department of Anesthesiology, University of Oklahoma Health Sciences Center, P.O. Box 26901, Oklahoma City, OK 73190.

Carl F. Schaefer received his PhD degree from the University of Rochester in 1972. He specializes in physiological psychology. He is assistant professor of research anesthesiology at the University of Oklahoma Health Sciences Center. He is a member of the Sigma Xi, the American Association for the Advancement of Science and the Oklahoma Society of Anesthesiologists (Scientific Affiliate).

A graduate of Oklahoma State University, Daniel J. Brackett is a member of the American Physiological Society and the Sigma Xi.

C. G. Gunn, MD, was graduated from Yale Medical School and specializes in internal medicine. He is professor of medicine at the University of Oklahoma College of Medicine.

A graduate of the Ohio State University, Kurt M. Dubowski, PhD, specializes in toxicology. He is a member of the American Academy of Forensic Sciences, the Society of Forensic Toxicologists, the Society of Toxicology and the American Chemical Society.



News From The Oklahoma State Department of Health

Hypertension Detection in Oklahoma

The Oklahoma State Health Department (OSHD) has had a Hypertension Detection Program for approximately ten years. This program is incorporated into the Chronic Disease Screening Clinics, general Medical Clinics, Family Planning, WIC and Home Health Care Services located in the sixty counties with local health departments.

For the last three years, OSHD has also had an extensive Hypertension Screening Program for the general adult population, (concentrating on the 30-45 age group) and high school students in all seventy-seven counties. The major components of this program have been detection, counseling and referral to the participant's private physician.

The participants in the OSHD Hypertension Detection Program with blood pressures above the referral level are checked at least three times and counseled by a Registered

Nurse before referral to their private physician. The referral levels of 140/90, for persons 18 years of age and under, and 160/100 for those persons over 18 were established by a professional advisory committee of physicians.

The state-wide detection effort has been accomplished by special screening clinics that were coordinated with civic groups, voluntary health agencies, industries, school programs, special age related programs and Hypertension Month activities. Approximately 100,000 persons have been screened through health department clinics. The special hypertension screening programs from May, 1977 to May, 1979 screened and referred the following in 38 counties for a total of 34,318 screened and 841 referred to a private physician.

In 1980 the OSHD plans to continue with its hypertension screening efforts including counseling and referral to private physicians and to include public education. □

COMMUNICABLE DISEASES IN OKLAHOMA FOR SEPTEMBER, 1979

DISEASE	SEPTEMBER 1979	SEPTEMBER 1978	AUGUST 1979	TOTAL TO DATE	
				1979	1978
Amebiasis	7	5	—	17	25
Aseptic Meningitis	24	11	38	92	50
Brucellosis	—	1	1	2	4
Encephalitis, Infectious	—	4	5	18	17
Gonorrhea (Use Form ODH-228)	1305	1232	1601	10223	10253
Hepatitis A	37	38	25	198	259
Hepatitis B	21	14	24	104	115
Hepatitis Unspecified	22	21	23	145	151
Measles (Rubeola)	—	1	—	22	13
Meningococcal Infections	3	—	1	26	15
Pertussis	—	3	2	7	12
Rabies (Animal)	24	16	23	221	149
Rocky Mountain Spotted Fever	10	6	5	53	51
Rubella	—	1	—	22	12
Rubella (Congenital)	—	—	—	1	—
Salmonellosis	69	37	45	280	215
Shigellosis	34	47	41	183	245
Shyphilis (Use Form ODH-228)	7	11	10	75	86
Tetanus	—	—	—	—	3
Tuberculosis	35	24	29	274	259
Tularemia	2	1	6	13	4
Typhoid Fever	—	—	—	—	2

OSMA To Organize Insurance Plan

The Oklahoma State Medical Association will provide professional liability insurance coverage for member-physicians during 1980.

The OSMA Board of Trustees approved, in November, the recommendation of the Council on Member Services to implement an insurance program. The company will become operational on January 1, 1980.

Consideration of self-insurance by this council began last year after Oklahoma physicians paid a 32.6 percent premium increase amounting to \$2.4 million dollars over the 1978 rates.

The Board of Trustees was authorized by the House of Delegates last May to activate an insurance company if the commercial market became unattractive. At that time the council began reviewing alternative insurance plans. Following this study, the council voted unanimously to recommend formation of a captive insurance company.

Several important facts about the new Physicians Liability Insurance Company are:

- The company will be capitalized at \$3 million, which is a conservative figure above that required by the law. An assessment will be collected from participating physicians over a three-year period and will be scaled according to insurance risk class. Future members of OSMA will be required to pay the assessment as will non-members.
- OSMA will be the sole shareholder and a 15-member board of directors selected by the OSMA Board of Trustees will govern the company.
- A management contract will be executed with a management company to oversee operation of the captive company.
- The OSMA company will continue to offer occurrence coverage which covers any event which occurs during the policy year regardless of when the lawsuit is filed. OSMA feels this is vastly superior to claims-made coverage which is available in some other states.
- Five coverage options will continue to be available . . . \$100,000/\$300,000; \$1 million; \$2 million; \$3 million; and \$5 million.

- The cost of coverage through the captive program . . . including the separately-invoiced annual OSMA assessment . . . will be lower than the best 1980 premium quotation received from the commercial insurance industry, and in most instances will be lower than the 1979 rates.

- The OSMA captive company will employ the same OSMA-approved lawyers who have represented Oklahoma physicians since 1967 and whose trial records are among the nation's best. □

Oklahoma Congressmen Favor VE

"There is a general sympathy in our congressional delegation for some action to moderate escalating hospital costs. But they are not willing to turn it over to the regulation of the Department of Health, Education and Welfare," says David Bickham, executive director of the Oklahoma State Medical Association.

Bickham and Perry Lambird, MD, chairman, OSMA Council on Governmental Activities, met with Oklahoma's congressmen in Washington, DC during October to urge them to vote against the administration's proposed cost containment bill which would approve a ceiling on hospital revenues. They said Oklahoma did not need this type of program. Bickham told the congressional delegation that Oklahoma has reached its goal to curb health care costs without mandatory regulations. He also said that Oklahoma's savings in health care costs compare favorably with states with imposed regulations.

OSMA's director said the delegation generally opposes the Hospital Cost Containment Act and supports an alternative proposal, the Jones-Gephardt substitute bill. Co-sponsor of the bill is Oklahoma's Congressman James R. Jones. This bill would not impose mandatory regulations, but would approve a commission to monitor the current voluntary effort.

The House of Representatives adopted the Jones-Gephardt bill instead of the administration's proposal by a vote of 234 to 167 in mid-November. Oklahoma's entire Congressional Delegation voted for the successful amendment. □



Charlotte S. Leebron

Charlotte Leebron died November 10 following an extended illness.

Charlotte was born and educated in Kansas. She taught school and worked in the public relations office of a Kansas college. She was the wife of William M. Leebron, MD, the current President of the Oklahoma State Medical Association.

During 1971, she served as President of the OSMA Auxiliary.

Charlotte was active in and served with distinction on many church, medical and community service committees and organizations. Earlier this year she was named as Woman of the Year in Elk City.

Charlotte had a unique concern and interest in others and throughout her recent illness continued to serve those interests. She will be missed but fondly remembered by her many friends.

PROCLAMATION

The Board of Trustees of the Oklahoma State Medical Association hereby formally expresses its deep gratitude and appreciation to the William M. Leebron Family. As President of the OSMA Auxiliary and as OSMA's First Lady, Charlotte gave freely to all and exhibited the statesmanship, compassion and courage for which each of us strives. The Oklahoma State Medical Association owes the Leebron Family a debt we can never repay.

*OSMA Board of Trustees
November 11, 1979*

OSMA Director Addresses Legislative Committee

"Our goal to curb rising medical costs has been met," says David Bickham, executive director of the Oklahoma State Medical Association.

Bickham addressed a meeting of the Special Legislative Committee on Health Care Delivery System in October which is studying hospital cost containment.

"In 1978 alone an estimated \$1.48 billion was saved by the Voluntary Effort to Contain Health Care Costs," he said.

Bickham told the legislative committee that the rate of increase for hospital costs was 15.6 percent per year two years ago. Twelve months after the Voluntary Effort was implemented this figure fell to 12.6 percent. He said the decline surpassed the goal to decrease the rate of increase by two points per year. He also said the two-year goal for the program was to average 12.6 percent, while the actual rate of increase was a close 12.65 percent.

At the state level, the OSMA director said the Voluntary Effort achieved even greater success. In 1977, he said the rate of increase was 17 percent. He said Oklahoma doctors and hospitals hoped to match the national goal of 13.6 percent in 1978. He told committee members that instead, the rate of increase dropped to 11.7 percent, much better than the original goal. He also said the Oklahoma Voluntary Effort has more than met the national two-year goal of 12.6 percent by maintaining an average increase of 12.25 percent during that time.

Bickham also pointed out several other activities involving the OSMA and Oklahoma physicians in their effort to counter rising health costs.

He told the committee the OSMA had implemented a series of patient education programs including public service educational announcements. Bickham said these messages instructed patients about how to avoid unnecessary medical costs by stressing preventive medicine, immunizations, sensible exercise, proper emergency room usage and the need to find a personal physician before an emergency arises. According to Bickham, approximately 300,000 patient-education brochures have also been distributed by the

OSMA to inform patients about various medical topics including rising costs.

Bickham also told the committee that OSMA provides some effective cost containment services including the second opinion services for patients scheduled for surgery who want the advice of another physician. He also told them about the availability of the Peer Review Committee that will resolve fee conflicts between physicians, patients and insurance companies.

Bickham said Oklahoma's hospital costs compare favorably with states which have approved mandatory cost regulations, and he urged the committee to allow the Voluntary Effort to continue its program. The free enterprise system is the best way to accomplish the goal of cost containment, he said. □

OSMA Auxiliary Hears Texas Speaker

The November board meeting of the Oklahoma State Medical Association Auxiliary featured a guest speaker of many interests. She is Mylie Durham, Houston, chairman of the Southern Regional Health Projects for the American Medical Association Auxiliary.

Health projects, the subject addressed by Mrs Durham at this meeting is one of many activities she is involved in.

Mrs Durham divides her AMA participation with the medical associations of her county and state, and she has held numerous positions at both levels. But her interest in the medical field has been further expanded by her work as a volunteer in several other health field services.

Although she devotes much of her attention to the field of health care, Mrs Durham is also involved with a variety of civic activities. She has taught grooming and charm classes at the YWCA; led groups within her church; served on the PTA Executive Board; and served on the Consumer Advisory Board of a Houston department store. She has also been a leader of the Texas and national associations of parliamentarians.

Included also on Mrs Durham's list of many interests is the Texas Poll-ette Association, the auxiliary to the Texas Polled Hereford Association. She formed this group after she and her husband went into the cattle business. Mrs Durham also assisted with the organization of Poll-ette chapters in seven other states. □

FTC Favors Advertising

"The Oklahoma State Medical Association is disappointed, but not surprised to learn that the Federal Trade Commission has reaffirmed its position on physician advertising," William M. Leebron, MD, OSMA president said in response to the latest FTC ruling.

The commission opted to favor its own 1975 ruling permitting physician advertisement and patient solicitation over appeals made by medical organizations.

Dr Leebron said previous FTC complaints accused the American Medical Association and other organizations of preventing physicians from advertising their services and offering patients adequate information necessary to make a choice.

"Nothing could be further from the truth. Neither the American Medical Association nor the OSMA has prevented their members from advertising," says Leebron.

Dr Leebron said physicians have a responsibility to provide patients with the information necessary to make informed decisions about their health care. He said ethical guidelines compiled by these societies con-

sider the best interest of the patients by helping to eliminate patient solicitation and false, misleading or deceptive advertising. He said the OSMA has always encouraged physicians to provide information about office hours, location, training, etc.

The OSMA president said the latest FTC ruling differs from the original decision in that it does recognize the importance of organized medicine in the prevention of false and deceptive advertising. He said the ruling acknowledges the ethical advertising guidelines of medical societies to be a protective device for the public.

Dr Leebron said organized medicine has assisted in the elimination of hucksters and unqualified practitioners who once preyed on patients through false advertising. He also said organized medicine has been significant to the improvement of medical education and the elimination of diploma mills.

According to Dr Leebron, the state medical association will abide by the FTC ruling, although he does not believe it will have a significant effect on physician advertising in Oklahoma. He also expects this decision to be appealed again. □

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New Agent Could Cause Scalp Infection

Physicians should consider a new organism as a cause for abnormal scalp conditions. This agent cannot be diagnosed by the common examination for scalp infection.

The provost of the Medical University of South Carolina, Charleston, gathered ringworm statistics which revealed a dramatic change in ringworm organisms causing fungus infection of the scalp.

Until recently most ringworm-causing agents were *Microsporum* sp, *M—audouinii* and *M Canis*, all of which could be diagnosed by the usual scalp infection treatment, the fluorescent light examination.

The South Carolina studies indicated that more than 90 percent of ringworm fungus infection during the 1970's was caused by another organism known as *Trichophyton T-onsurans*. Physicians are encouraged to consider this agent as a possibility with patients having scalp infection since the diagnostic test does not indicate its presence.

This agent was introduced into the Southern and Southwestern states from Puerto Rico and Mexico in the 1950's, but at that time ringworm cases caused by this organism were rare. □

Success By the Twitching of a Muscle

Significant to the success of a competitive runner could be the twitching of his muscles.

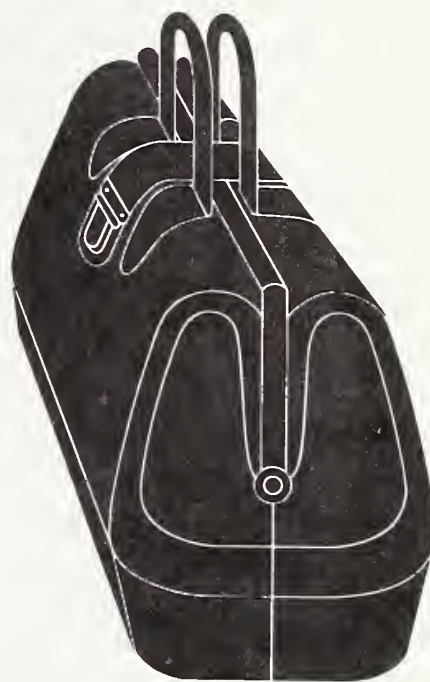
Researchers at Ball State University are studying fiber composition of leg muscles and how this affects a runner's chance for success in competitive events. They have taken samples of two types of muscle fibers, slow-twitching and fast-twitching, from the legs of well-trained runners and non-runners.

Dr David L. Costill, a marathoner and professor of physical education and biology and director of the Ball State Human Performance Laboratory, discovered that successful long-distance runners have more slow-twitching muscle fibers than fast-twitching.

But on the other hand, he also found that sprinters usually have more fast-twitching fibers.

The researcher said fiber types are not changed by training and that many other factors also influence the success of a runner. □

Doctor?



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Blaschkes Share Home With Foster Children

Behind the counter of a bar in a dark, smoke-filled room, the police discovered, inside a cardboard box, a baby boy with dirty clothes and a face of lifeless expression.

This unattended child has been one of almost 100 abused and neglected children entering the home of Dr and Mrs John Blaschke, Oklahoma City. The Blaschkes have learned of countless stories of this type since their involvement as foster parents beginning ten years ago.

The doctor said his attitude toward this venture was negative at first, but he consented because he said he realized the importance of his wife's involvement in something after raising their own six children. "Her interest just happens to be children. Many women choose a second career after their children are grown and this is like a second career for her," Dr Blaschke said. He said his wife's area of expertise is caring for abused children. "She is always getting calls from Children's Hospital requesting her assistance with an undernourished baby," the physician said.

Before Mrs Blaschke's interest as a foster parent developed, she said a friend asked her what she intended to do with her children's five bedrooms after they left home. "I told her that I would convert them into a nursery. But at the time, I was only kidding."

This joke has since turned into reality. However, more than just five bedrooms of the Blaschke home is equipped with child care facilities. Scattered throughout their kitchen are several high chairs, while among their furniture in the den are strollers and a variety of portable baby beds.

The couple accepted their first foster child while three of their own children were still living at home. "I only wanted one," Mrs Blaschke said. But after all of the Blaschke children left home, their parents' commitment to foster children grew.

Doctor and Mrs Blaschke have cared for as many as five foster children in their home at one time. Mrs Blaschke said the average length of stay for each child is usually six months. However, she said two-and-a-half years was the longest that any child lived



Dr and Mrs John Blaschke

with them and that eight hours was the shortest.

Doctor Blaschke said his involvement has evolved over the years also. "My most unique experiences as a foster parent include visits to the pediatrician with these children and talking with the young mothers about the pediatrician while we wait," he said.

The life of a child in the Blaschke home includes various activities. The couple even took three of these toddlers on a trip with them to Washington, DC several years ago. Christmas is made a special time for the children, too. Dr and Mrs Blaschke said they try to make a separate celebration with these children apart from their own family in order to give their foster children the special attention they need.

The Blaschkes share frequent weekend jaunts to Lake Eufaula with their foster children. Their lakeside cabin, surrounded with swing sets and sand boxes, also contains a duplicate set of all the child care facilities the couple have in their home. "I own more baby beds, port-a-cribs and have bought more disposable diapers than anyone else in the world," the physician said. "I also have the world's largest collection of infant-sized life jackets."

Another activity offered these children by the physician and his wife is exposure to their church every Sunday. The couple's personal commitment to their own spiritual development and of others motivates them to include these youngsters in this involvement.

Of course including several youngsters in

activities away from the couple's Oklahoma City home requires a spacious automobile. The doctor and his wife own a three-seated station wagon and Dr Blaschke said he intends to hang on to this possession since three-seated automobiles are no longer manufactured.

Doctor and Mrs Blaschke have numerous photographs of the children who have become a part of their lives. Among them is a picture of that unattended little boy found inside a bar. His face is no longer a picture of a child with lifeless signs of unhappiness, but the face of a cheerful child with bright eyes and a joyful smile. This youngster has a new home now. The Blaschkes' involvement in his life is over.

Mrs Blaschke said caring for foster children is much easier now than during the earlier years of this venture. She said her short involvement in the lives of these children made it hard to let them leave after permanent homes were found for them. "But now I just look forward to another interesting child when I have to let one go. You have to let it happen if you want to remain a foster parent," Mrs Blaschke said.

The doctor said that he and his wife are often plagued with curiosity about how these children develop. "I just wish we could take a

look at them from across the street. But once they walk out of our door, they walk out of our lives." □

Winter Scientific Meeting in January

The 33rd Winter Scientific Meeting of the American Medical Association will be held January 12-15 in San Antonio, Texas.

This four-day session will offer physicians courses covering a variety of subjects. The program will include 45 postgraduate courses, 20 symposia, video clinics, cardiopulmonary resuscitation courses, scientific exhibits and other programs.

Highlights of the meeting will include:

- Hypertension Update: 1980. Physicians will be briefed on a recommended approach to office treatment of patients with the recently discovered high blood pressure.
- Controversies in the diagnosis and management of breast cancer.
- Malevolent Inflictions: Bites and stings.
- Practical training for the physician regarding four types of cancer; cancers of the breast, lung, colon and pancreas.
- Diabetes mellitus: This course will stress appropriate use of diet, proper diagnosis, oral agents and insulin treatment.
- Behavioral problems in children and adolescents. □

Deaths

WILLIAM K. ISHMAEL, MD
1910-1979

Well-known oncologist and internist, William K. Ishmael, MD, died while vacationing in Thimphu Bhutan, India, October 7, 1979. A native of Oklahoma City, Dr Ishmael was graduated from the University of Oklahoma College of Medicine in 1935, where he later became clinical professor of the Department of Medicine. Following postgraduate work, Dr Ishmael established his practice in Oklahoma City. Active in medical circles, he was a Fellow of the American College of Physicians and was certified by the American Board of Internal Medicine. For seven years, Dr Ishmael served as Editor of the *Oklahoma County Medical Society Bulletin*.

CHARLES R. ROUNTREE, MD
1898-1979

Charles R. Rountree, MD, past-president of the Oklahoma State Medical Association, died November 11, 1979. A native of Springfield, Missouri, Dr Rountree was graduated from the Washington University School of Medicine. Following postgraduate training in orthopedics, he established his practice in Oklahoma City, retiring from active practice in 1966.

Dr Rountree was a charter member of the American Academy of Orthopedic Surgeons; one of the founders and a past-president of the Southwestern Surgical Congress; a member of the Clinical Orthopedic Society; the American Board of Orthopedic Surgery; and, a Fellow of the American College of Surgeons. He had served as president of the OSMA in 1944-45 and was a Life Member of the OSMA. □

Physicians Speak Against Government Regulations

Articles written in opposition to government regulation of the health care industry were submitted by physicians and included in a special section of an American Medical Association newsletter.

"Wholesale federal regulation of the American health care system would fail to solve its economic problems and would be the most destructive, repressive, and reactionary step ever taken in the name of advancing the health of the people of this country," says Charles C. Edwards, MD, Scripps Clinic and Research Foundation, California.

Doctor Edwards has also served as assistant secretary for health, Department of Health, Education and Welfare, and as commissioner of the Food and Drug Administration.

The physician said the federal government is taking the initiative toward the domination of health care in the form of the administration's bill to put a ceiling on increases in hospital fees.

This doctor believes that government-controlled systems will reduce opportunities of striving for excellence, prevent the discovery of new health care delivery systems, lower the level of innovative personnel and hinder the discarding of outmoded practices.

He said such systems, with their standardized rules could discourage efforts toward new ideas and things not prescribed.

"It is dangerous folly to try to put the health care system in an economic straight-jacket when the rest of the economy is given little more than fatherly encouragement in the service of controlling inflation. I am convinced that to try to regulate the economics of the health care system, while the rest of the economy spirals upward, is an arbitrary course of action that is doomed to fail," the doctor said in his article.

Another physician, Lionel Dorfman, MD, Michigan, also disagrees with government regulation, but he believes that government has done more than begin to take the initiative. He believes it has already interfered to the point of complicating the doctor's efforts in administering health care to his patients.

He pointed to two groups he thinks are causing immediate conflict. "You can hardly

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practice for 20 minutes without running into a government regulation of some sort. Right now we're struggling with PSRO's (Professional Standards Review Organizations) over the appropriateness of hospital admissions. Wait until they get around to the appropriateness of treatment," Dr Dorfman said in his article.

Doctor Dorfman said the other group causing problems in the health industry is the HSA (Health Systems Agency). "They are threatening us with bed reduction. Wait until we're threatened with a reduction of service," he said in that same article. □

Benham-Blair & Affiliates Receive Awards

Benham-Blair & Affiliates, Inc., has been notified that the company has received national awards for design of two projects from the Society of American Registered Architects.

The design for the Mercy Health Center received the SARA Blue Ribbon Award, and the design for the Dean A. McGee Eye Institute won the Red Ribbon Award. Both awards were announced at the conclusion of national competition held in Chicago, Illinois.

The eight-story Mercy Health Center contains 450,000 square feet with a base of two levels, a mechanical level and five patient floors. A ten-story Doctors Office Building is connected to the hospital by a pedestrian and communications tunnel.

The hospital and master plan of the 40-acre site were designed to accommodate expansion of the diagnostic and treatment levels laterally and the patient areas vertically. The facility contains an automated materials handling system and an extensive closed circuit television system, including a complete television production and broadcast studio.

The Dean A. McGee Eye Institute is a five-story, 70,000 square-foot eye research and clinical facility. The institute also includes an animal research installation and vivarium.

Benham-Blair provided health care master

planning, programming, concept design, preliminary and final working drawings, and construction documents.

The main floors are designed on five-foot modules of integrated ceiling, lighting, air conditioning and partitioning to allow for future flexibility of the interior spaces.

Both Mercy Health Center and Dean A. McGee Eye Institute have previously received the Award of Merit from the Lighting Design Illuminating Engineering Society of North America. Mercy has also won the Award of Excellence of Oklahoma City Beautiful, Inc., and the Award of Excellence of the American Concrete Institute.

Benham-Blair & Affiliates operates offices in nine major cities throughout the United States with headquarters located in Oklahoma City. □

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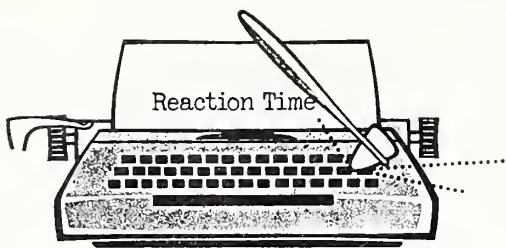
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**MAY 8 - 10, 1980
OKLAHOMA CITY,
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Mark R. Johnson, MD
P.O. Box 26901
Oklahoma City, Oklahoma 73190

Dear Doctor Johnson:

Your editorial in the July issue of the Oklahoma State Medical Journal was read by members of the Department's staff and myself with considerable interest. We know that you had an early affiliation and aided in the development of this program, which in the areas you describe, has changed very little since the days you helped develop it. We assume you are speaking your frustrations in general and your comments are not directed to the Department. However, we would like to take this opportunity to emphasize some items that are mentioned in your editorial. (1) In the last few months we have had complaints concerning the payment for authorized exams from several physicians over the State. The Advisory Committee on Medical Care for Public Assistance Recipients at its regular meeting on Thursday, July 12, 1979, recommended to the Oklahoma Public Welfare Commission, an increase in the fee for this service to \$30.00. (2) In reference to the claim form, there are certain state laws and federal requirements which necessitate that the physician sign his claim and have it notarized. The form ABCDM-80, the physician exam form, has been simplified since the early days and it is necessary to have it completely filled out since this serves as the admitting exam and physician's order sheet which are requirements for admission to a nursing home if payment is to be made from state and federal funds.

Regarding charges in general, the Department has protested the method of allowed charges ever since the freeze on physicians' charges in February of 1969. As you are well aware, the Medicaid agencies are forbidden by law to pay for a service that could be covered for eligible

individuals under Medicare and the agencies are also bound by the determination of the Medicare allowable which we feel is particularly unfair to the physician who has tried to keep his charges moderate and raise them as infrequently as possible. Constructive suggestions are always welcome and we hope you will communicate directly with us when the occasions arise.

Very truly yours,
L. E. Rader
Director of Public Welfare

Dear Sir:

While I found your recent article (*Journal of the OSMA* 72:165, June 1979) on Reye's Syndrome to be one of the better short reviews of this difficult topic that I have read, it did contain several statements upon which I would like to elaborate further.

Primarily, I disagree with Dr Riley's statement that the mortality rate remains about 50%. Whilst this was true ten years ago, early diagnosis with early administration of hypertonic glucose and aggressive treatment of cerebral edema have reduced the mortality rate to 10% in many centers.¹⁻³ About 10% of survivors will have persisting neurological impairment. I use the term aggressive treatment to include as a minimum the administration of hypertonic glucose, early endotracheal intubation, reduction of raised intracranial pressure, and control of seizures.

In Tulsa in the first four months of 1979, we cared for 11 children with Reye's Syndrome with no fatalities. There was persisting neurological impairment in only one case, this following a coma lasting three weeks despite controlled IV fluid administration and the use of Mannitol, barbiturates, hypothermia, curarisation and controlled ventilation.

Regarding the clinical features of this syndrome, I find myself unable to agree that fever is common in the early stages and unable to locate a single report of a patient presenting with a hematemesis or visual hallucination.

I believe that early diagnosis and aggressive treatment are essential to success. Since the coma is not due to ammonia, there is no

indication for the use of neomycin. Reduction of raised intracranial pressure is imperative and the best agents for this are the osmotic diuretics, particularly Mannitol. Barbiturates have also been shown to be highly effective in lowering raised intracranial pressure and, by an unknown mechanism, in protecting the brain against hypoxia.⁴

I would make a plea to primary care practitioners to consider Reye's Syndrome in a child who, following an upper respiratory infection or chicken pox, presents with vomiting and even the slightest change in neurological function. If a child with these symptoms also has raised serum transaminases (SGOT or SGPT), then the child should be referred immediately to a pediatric center.

Sean J. Fennell, MD, Assistant Professor, Department of Pediatrics, Tulsa Medical College, 2727 East 21st Street, Tulsa, Oklahoma 74114.

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4. Marshall, L. F., Shapiro, H. M., Rauscher, A. et al: Pentobarbital therapy for intracranial hypertension in metabolic coma, Reye's Syndrome. *Critical Care Medicine*, **6**:1, 1978.

To the Editor:

I thank Dr Fennell for his kind remarks about the article dealing with Reye syndrome (*JOSMA* **72**:165-70, June, 1979) and wish to respond to his inquiries.

Dr Fennell believes that the cited mortality rate of about 50 percent is too high. I, like certain other workers in various centers, also can point to small series of patients of Reye syndrome with few or no fatalities. However, discussions on this point have been held recently with various investigators interested in this problem from the Center For Disease Control and from other clinics, including some of the authors included in the reference list in Dr Fennell's letter. In general, these discussions indicate that if patients from all types of hospitals are included from this and other countries from which data are available, the overall mortality rate is still approximately 50%. In fact, some believe it to be even higher. Hopefully, as treatment methods improve and are more widely used, a widespread decrease in mortality will occur.

Regarding his comments, "... fever is common in the early stages . . . presenting

with hematemesis or visual hallucinations," I believe Dr Fennell misinterpreted my statements. I pointed out that fever may or may not be present early in the disease and that hematemesis or visual hallucinations may occur during the course of the illness but not as the presenting manifestation.

I concur with Dr Fennell in the belief that early diagnosis and aggressive treatment are important in the outcome of this disorder and with his plea for referral of cases early to the appropriate facility.

An additional point about which space precluded discussion in the original article relates to the age of patients. Reye syndrome has been generally considered a disease of young children; however, more recently, cases in older children, adolescents and even young adults have been observed.^{1, 2}

Harris D. Riley, Jr., MD
Children's Memorial Hospital
University of Oklahoma Health
Sciences Center
Oklahoma City, Oklahoma

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Chickasha Clinic Receives Grant

The Southern Plains Medical Foundation, Inc, of Chickasha was selected as one of ten medical practice groups from across the United States to participate in the Quality Assurance Development Project.

This project has been introduced as a vehicle for training selected organizations to determine the quality of health care administered within medical offices. It will begin to function in January, 1980.

The Quality Assurance Project will aid ambulatory care organizations with the development of their own on-site Quality Assurance Program. It will also provide advisory services to the group during its first operating year.

Project grants have been funded by the W. K. Kellogg Foundation and the St Louis Park Medical Center Research Foundation. □

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